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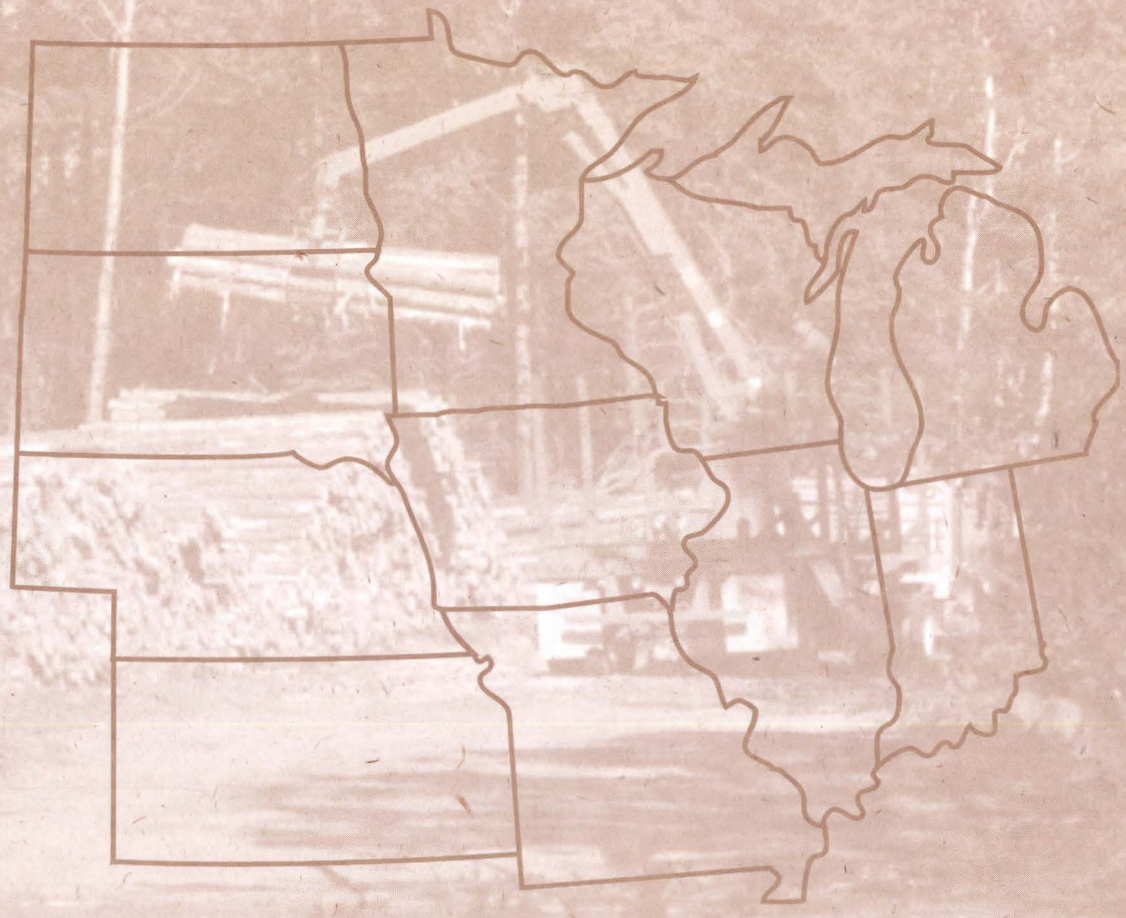
Pulpwood Production in the North-Central Region, 2001

Ronald J. Piva



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Pulpwood Production in the North-Central Region, 2001

Ronald J. Piva

NOTE: This report includes all primary products made from reconstituted wood fiber. In addition to wood pulp, this includes particleboard and engineered lumber products made from chips, shavings, wafers, flakes, strands, and sawdust. This report presents the production of the raw fiber material delivered to mills. Thus, these data report only that portion of the timber harvest used as raw material and do not necessarily reflect the volume of growing stock harvested.

Pulpwood constitutes more than half the industrial timber products harvested annually in the Lake States (Michigan, Minnesota, and Wisconsin) and is an important product in the Central States (Illinois, Indiana, Iowa, and Missouri) and the Plains States (Kansas, Nebraska, North Dakota, and South Dakota).

Current detailed information about pulpwood production[1] is necessary for intelligent planning and decisionmaking in wood procurement, forest resource management, forest industry development, and scientific studies.

Since 1979, logs, bolts, and wood residue used in manufacturing flakeboard, waferboard, oriented strandboard, and medium density fiberboard have been included in this annual report. Engineered lumber was first included in this report in 1992. Together, these products are called particleboard, and all mills manufacturing these boards are called particleboard mills in this report. Wood used at particleboard mills is identical or nearly identical to wood used at pulp mills; therefore, including this wood in our study provides a more accurate estimate of demand for pulpwood-like material.

Particleboard mills were in their infancy before 1979 and used primarily aspen and wood residue. Therefore, data for these mills do not distort roundwood use trends for other species or preclude comparing 2001 survey results with those of 1978 and previous years.

Pulp and particleboard mills using timber from the North Central States in 2001 reported their pulpwood receipts[2] by species group and county of origin. This report presents the results of the survey, analyzes the data, compares results with those of 2000 and earlier years, and discusses trends in pulpwood production and use.

The Lake States, Central States, and Plains States are discussed separately because the timber types in each area are different, the flow of wood between the areas is nominal, and more detailed data on pulpwood production and receipts in the Central and Plains States might reveal the operations of individual mills. This is the 43rd annual report of the pulpwood harvest in Lake States counties, the 42nd annual report of the Central States harvest, and the 9th report of the pulpwood harvest in the Plains States.

About the Author:

Ronald J. Piva, Forester, received a B.S. in forest management from the University of Missouri-Columbia. He joined the Forest Service in 1987 and has been working with the North Central Station's Forest Inventory and Analysis unit since.

[1] *Pulpwood production, determined from mill receipts, is the annual volume of pulpwood cut, plus the annual wood residue volume produced by sawmills, veneer mills, etc. used for pulp, particleboard, waferboard, oriented strandboard, medium density fiberboard, or engineered lumber.*

[2] *Pulpwood receipts are the volumes of wood received by mills in a specific State or region, regardless of the geographic source.*

Several mills purchase their pulpwood based on weight rather than volume. Factors used to convert green tons of pulpwood to standard cord equivalents are shown in the appendix.

When new surveys are completed, errors and omissions from previous surveys are corrected. As a result of our ongoing efforts to improve the survey's efficiency and reliability, changes may have been made to the previous survey's data. All comparisons and analysis in this report are based on the reprocessed data from earlier surveys, which may not match earlier published data.

LAKE STATES

PRODUCTION

- Pulpwood production in the Lake States fell to 9.0 million cords[3] in 2001, 5 percent less than in 2000. Overall, 90 percent came from roundwood (including chips from roundwood) and 10 percent came from the residue[4] of wood-using plants (fig. 1).

- Hardwood material—both roundwood and residues—constituted 76 percent of the total pulpwood production.

- Aspen remained the dominant species harvested for pulpwood in the Lake States in 2001, with 3.6 million cords, or 44 percent of the total roundwood. Other important species harvested for pulpwood in 2001 were soft maple (757 thousand cords), hard maple (673 thousand cords), jack pine (519 thousand cords), white birch (464 thousand cords), and red pine (424 thousand cords) (table 1).

- Softwood roundwood production in 2001 remained at the 2000 volume of 1.8 million cords. Pulpwood production from softwood residues increased by 2 percent to 352 thousand cords in 2001 (fig. 2).

[3] All references to cords are in standard cords. A standard cord is 128 cubic feet of wood, bark, and air space.

[4] Residue is the byproduct from sawmills, veneer mills, cooperage mills, and other wood-using mills that is used for pulping and particleboard. Residue includes slabs, edgings, veneer cores, sawdust, fines, woodflour, and chips manufactured from slabs, edgings, and veneer cores.

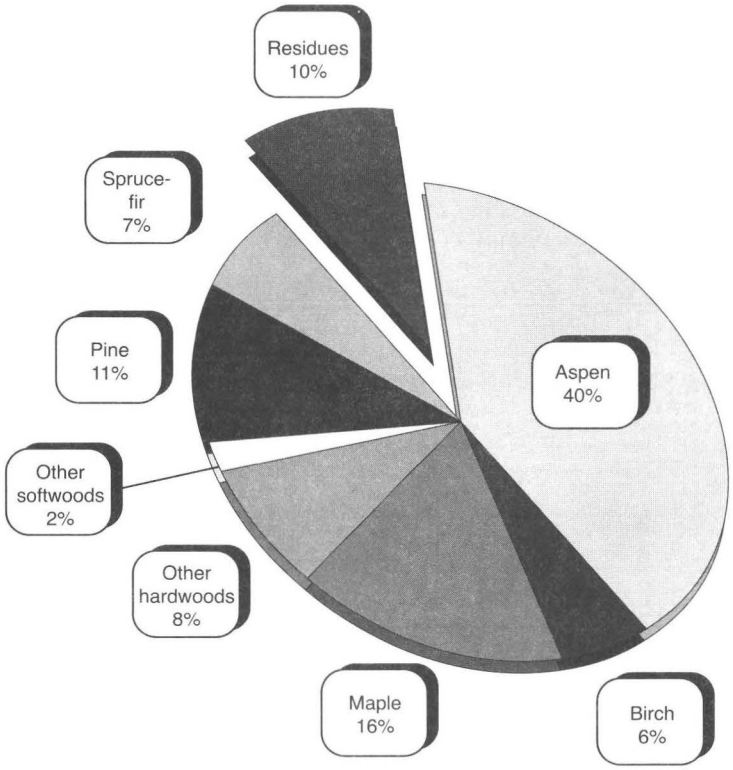


Figure 1.—*Lake States pulpwood production by species group and residues, 2001.*

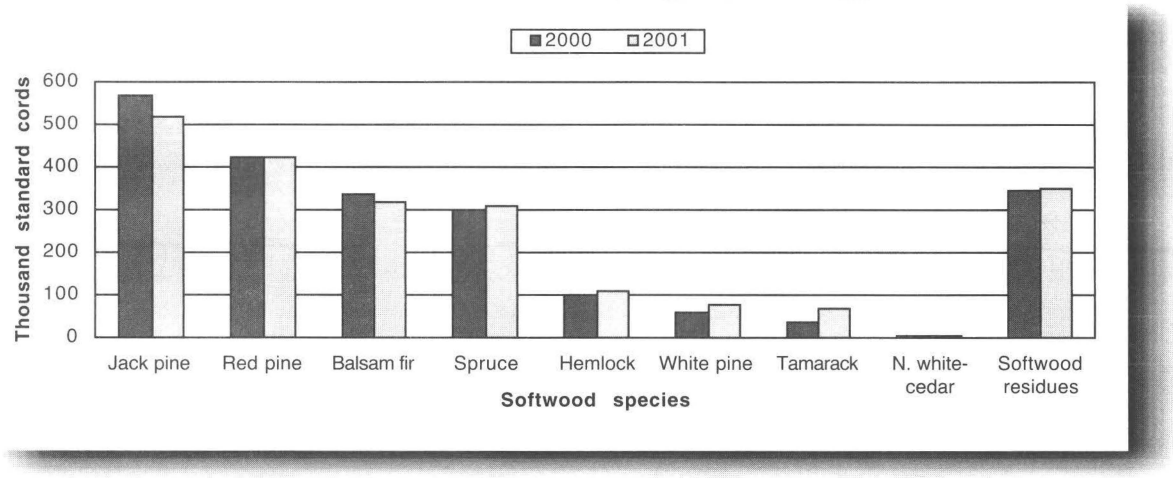


Figure 2.—*Softwood pulpwood production in the Lake States, 2000-2001.*

- Hardwood roundwood production decreased by 6 percent, from 6.7 million cords in 2000 to 6.3 million cords in 2001. Pulpwood production from hardwood residue decreased by 16 percent during the same period (fig. 3).

- Whole-tree chip[5] (WTC) production, at 645 thousand cords, made up 8 percent of the total pulpwood production in the Lake States in 2001. Compared to 2000 production levels, hardwood WTC production in 2001 decreased by 16 percent while softwood WTC production increased by 3 percent (fig. 4).

- Aspen was the predominant species used in WTC in 2001 with 243 thousand cords or 38 percent of the total WTC production. Jack pine, at 63 thousand cords, was the predominant softwood species used in WTC in 2000 and accounted for 10 percent of the total WTC production.

- Michigan was the major producer of WTC in the Lake States in 2001 with 416 thousand cords (64 percent of the WTC production) (fig. 5).

[5] *Pulpwood produced from chipping entire trees (all portions of the trees above ground, except the stumps).*

Michigan

- Michigan's total output of wood material for pulpwood production fell by 6 percent in 2001, from 3.1 million cords in 2000 to 2.9 million cords in 2001 (fig. 6, table 2).

- Roundwood production for pulpwood fell to 2.4 million cords in 2001, a decrease of 7 percent from 2000 (table 3).

- The Western Upper Peninsula was the top-producing region in the State in 2001 with 39 percent of the roundwood harvested (fig. 7, tables 4 and 5).

- From 2000 to 2001, roundwood pulpwood production increased by 12 percent in the Eastern Upper Peninsula, decreased by 6 percent in the Northern Lower Peninsula, decreased by 16 percent in the Western Upper Peninsula, and decreased by 31 percent in the Southern Lower Peninsula.

- The production of pulpwood from residues produced in Michigan decreased by 3 percent, falling from 464 thousand cords in 2000 to 452 thousand cords in 2001.

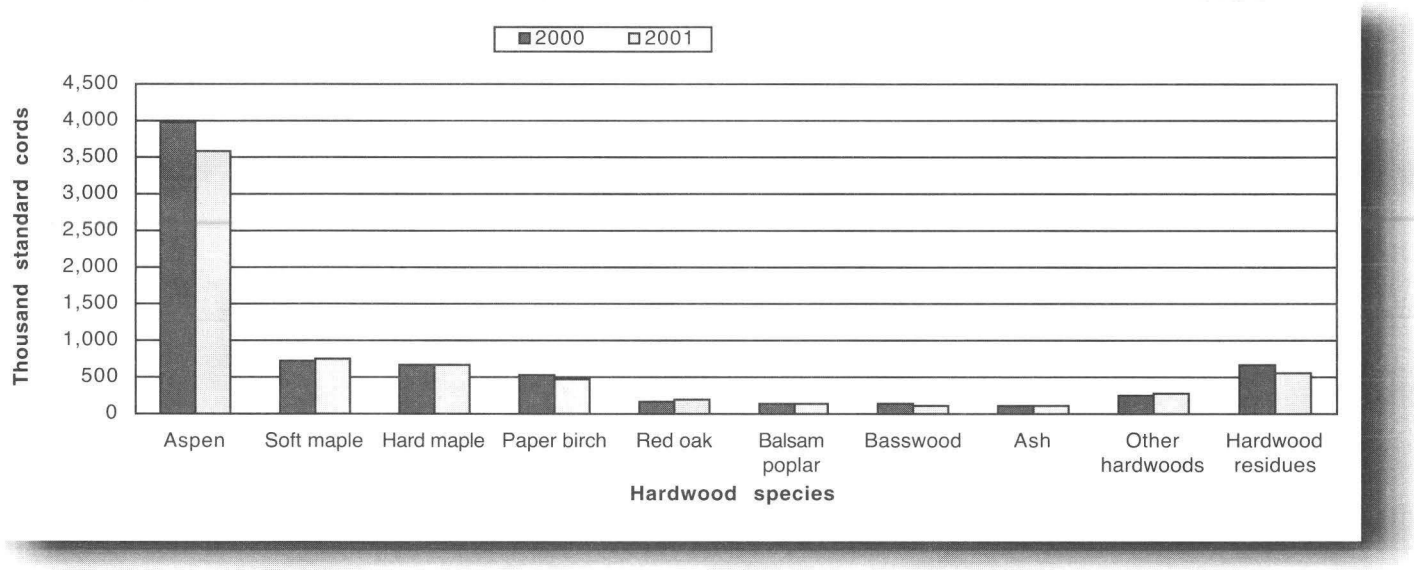


Figure 3.—*Hardwood pulpwood production in the Lake States, 2000-2001.*

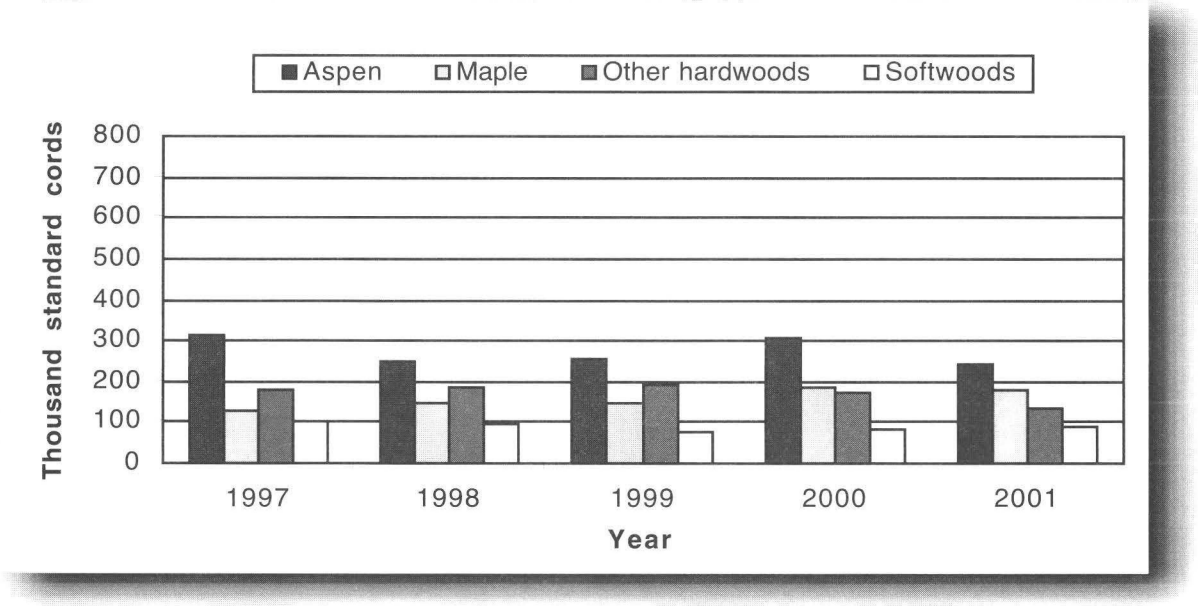


Figure 4.—*Whole-tree chip production in the Lake States, 1997-2001.*

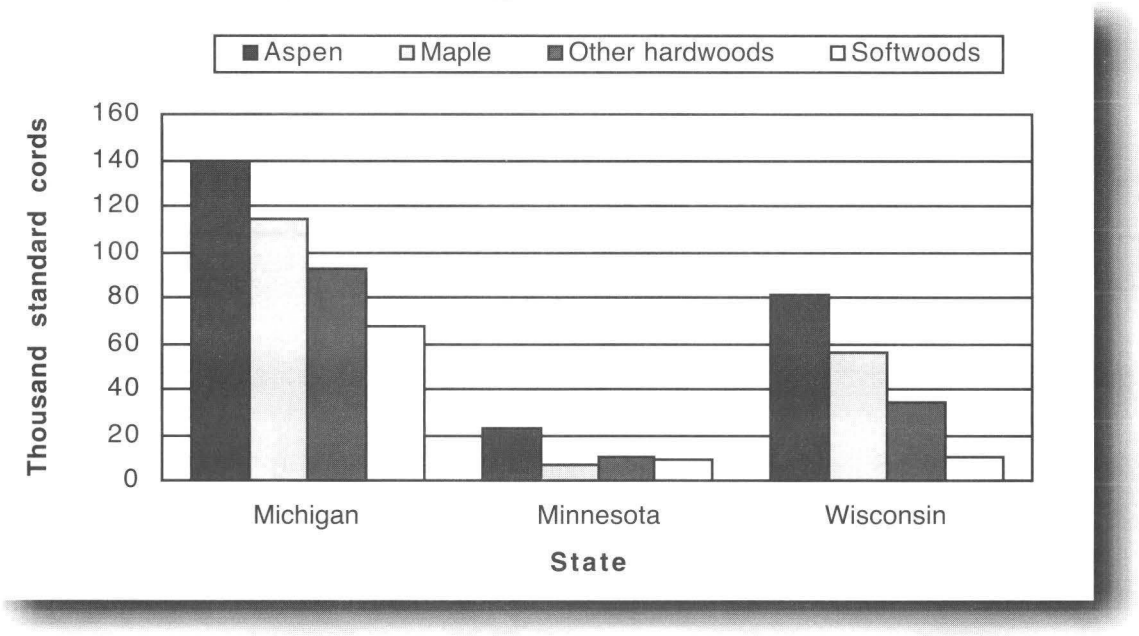


Figure 5.—*Whole-tree chip production by State in the Lake States, 2001.*

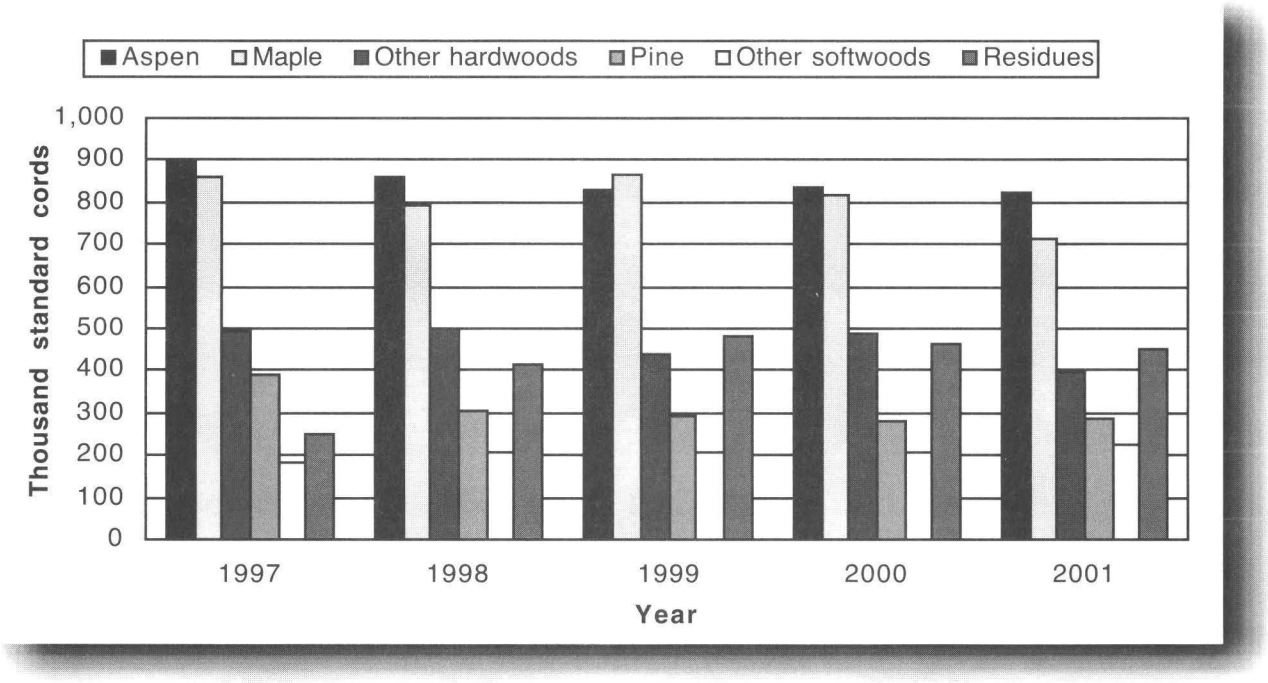


Figure 6.—*Michigan pulpwood production by species group and residues, 1997-2001.*

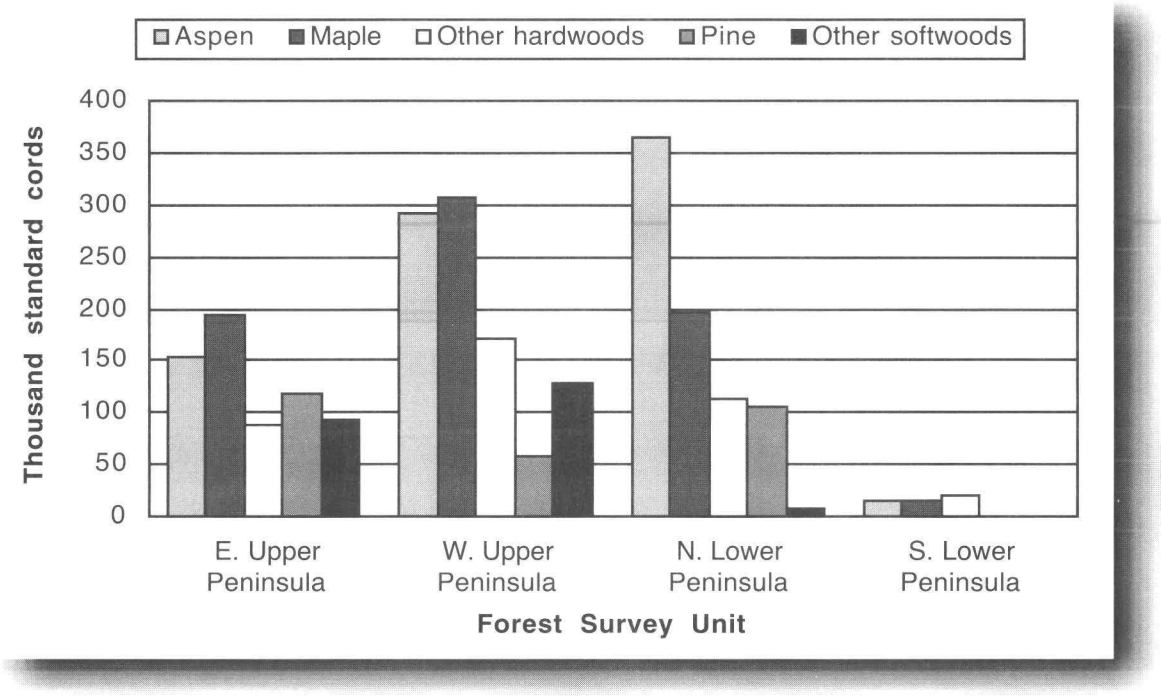


Figure 7.—*Michigan roundwood pulpwood production by Forest Survey Unit and species groups, 2001.*

Minnesota

- Pulpwood production decreased by almost 7 percent between 2000 and 2001, from 3.0 million cords in 2000 to 2.8 million cords in 2001 (fig. 8).

- Hardwoods accounted for 79 percent of the total pulpwood produced in 2001.

- Ninety-seven percent of the pulpwood was processed from roundwood sources.

- The Northern Pine and the Aspen-Birch Forest Survey Units were the top pulpwood-producing roundwood regions in the State in 2001 with 1.3 million cords and almost 1.2 million cords, respectively (fig. 9, table 6).

- Aspen pulpwood production decreased by 11 percent between 2000 and 2001. Aspen accounted for 69 percent of all the roundwood harvested for pulpwood in Minnesota in 2001.

- From 2000 to 2001, both hardwood residues and softwood residues produced in Minnesota and used for pulpwood production decreased by 15 percent.

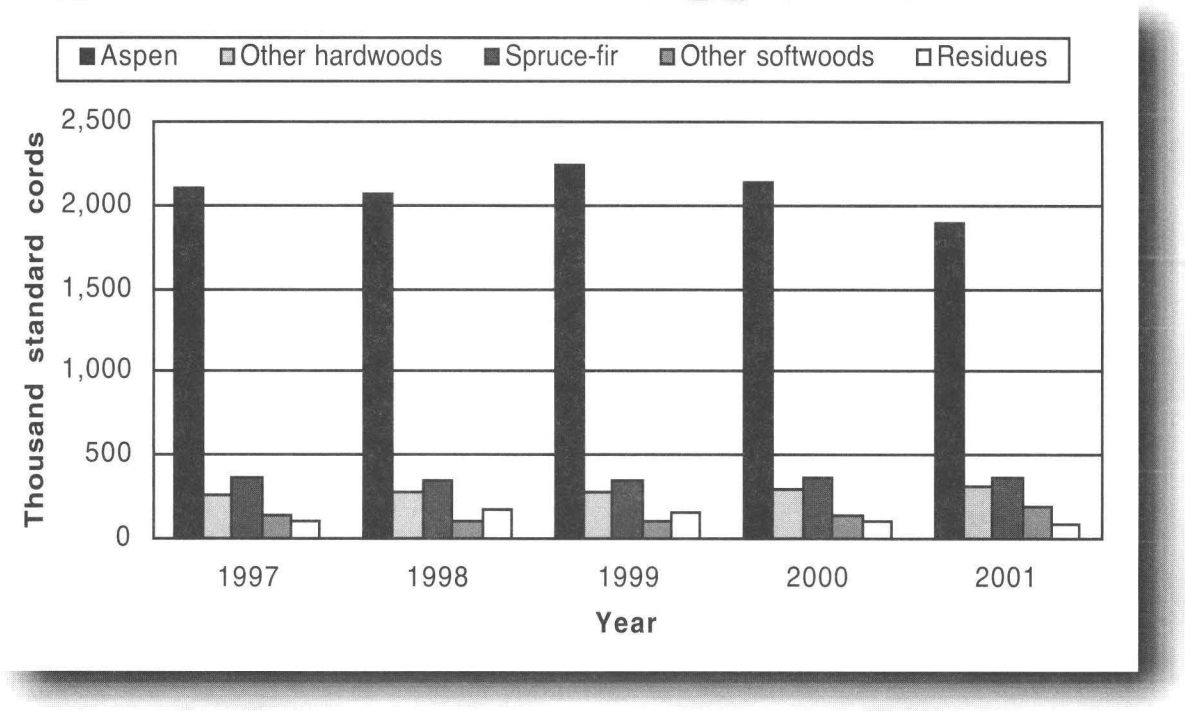


Figure 8.—*Minnesota pulpwood production by species group and residues, 1997-2001.*

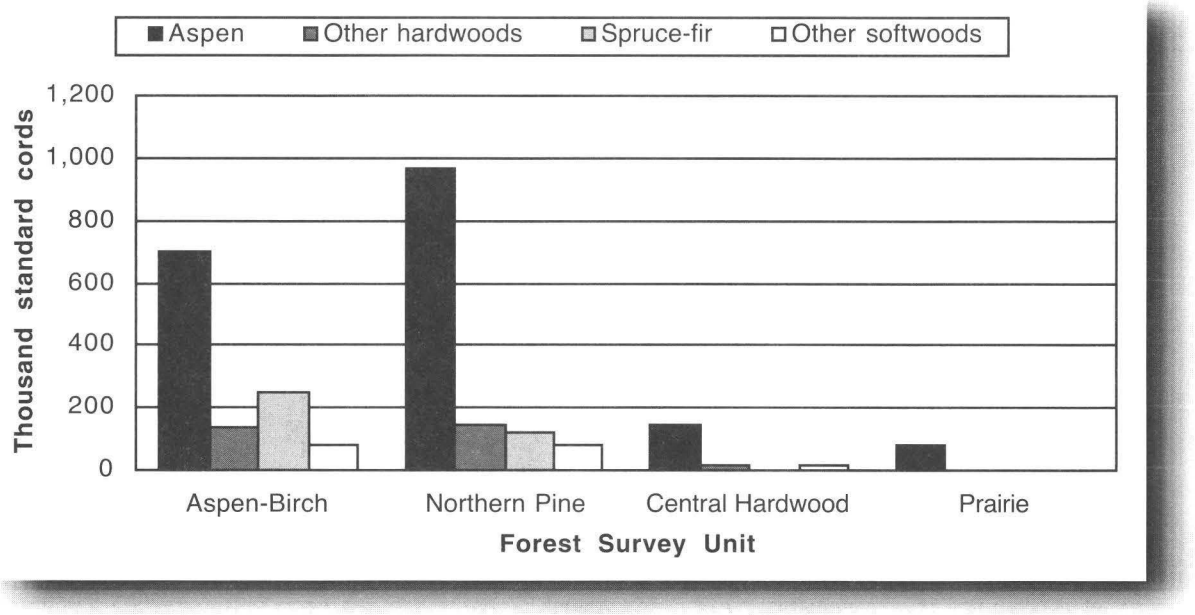


Figure 9.—*Minnesota roundwood pulpwood production by Forest Survey Unit and species group, 2001.*

Wisconsin

- Pulpwood production in Wisconsin decreased by 3 percent between 2000 and 2001, from 3.4 million cords in 2000 to 3.3 million cords in 2001 (fig. 10).

- Hardwood material accounted for 75 percent of the total pulpwood production in 2001.

- Roundwood harvested for pulpwood accounted for 89 percent of the pulpwood produced in 2001.

- The Northwestern Forest Survey Unit remained the top producer of roundwood for pulping in the State with almost 1.2 million cords (fig. 11, table 7).

- In 2001, hardwood residues produced in Wisconsin and used for pulpwood production decreased by 15 percent and softwood residues decreased by 18 percent from the previous year.

Harvesting Intensity

- In the following figures, the distribution of the harvest is shown in two ways: first, the amount of pulpwood cut relative to the growing-stock volume in each of five major pulpwood species (fig. 12); second, the amount of pulpwood relative to commercial timberland area (fig. 13).

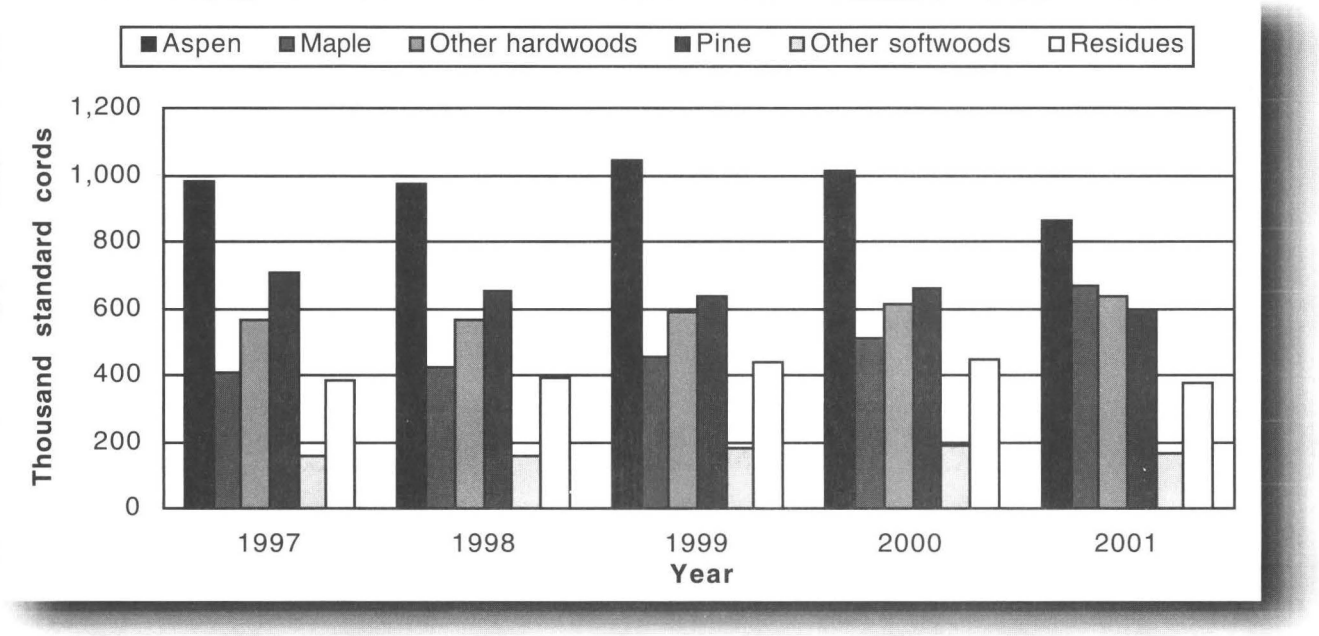


Figure 10.—*Wisconsin pulpwood production by species group and residues, 1997-2001.*

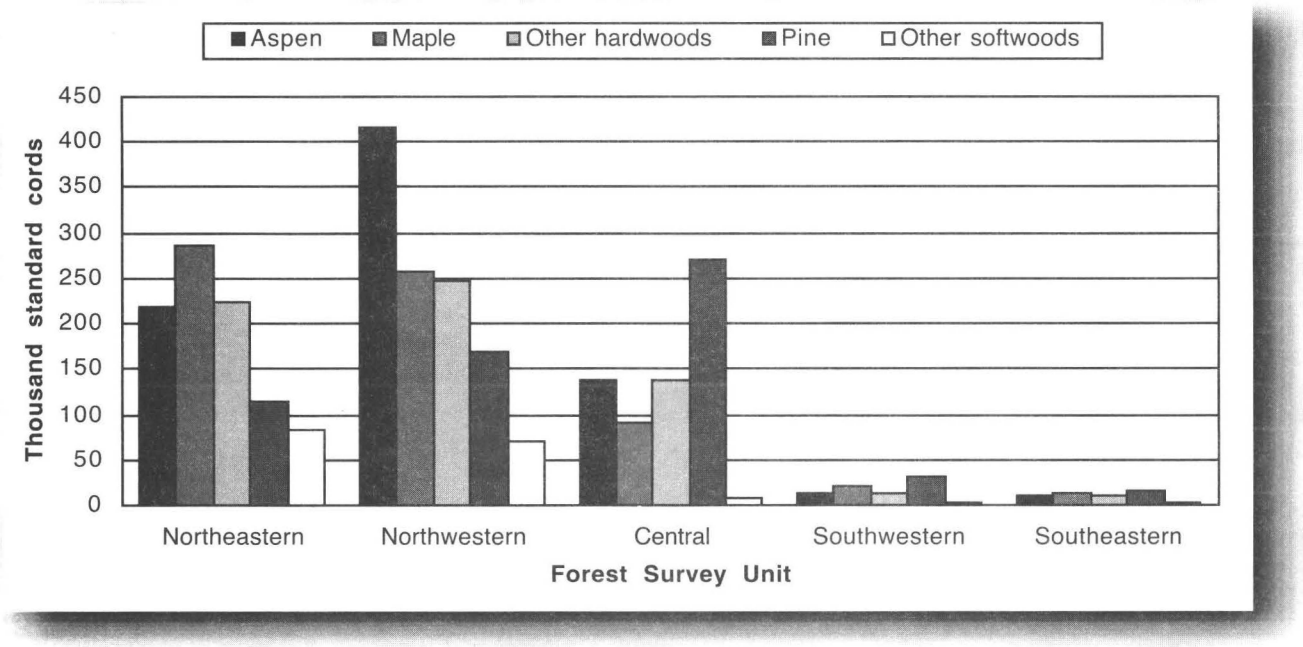


Figure 11.—*Wisconsin roundwood pulpwood production by Forest Survey Unit and species group, 2001.*

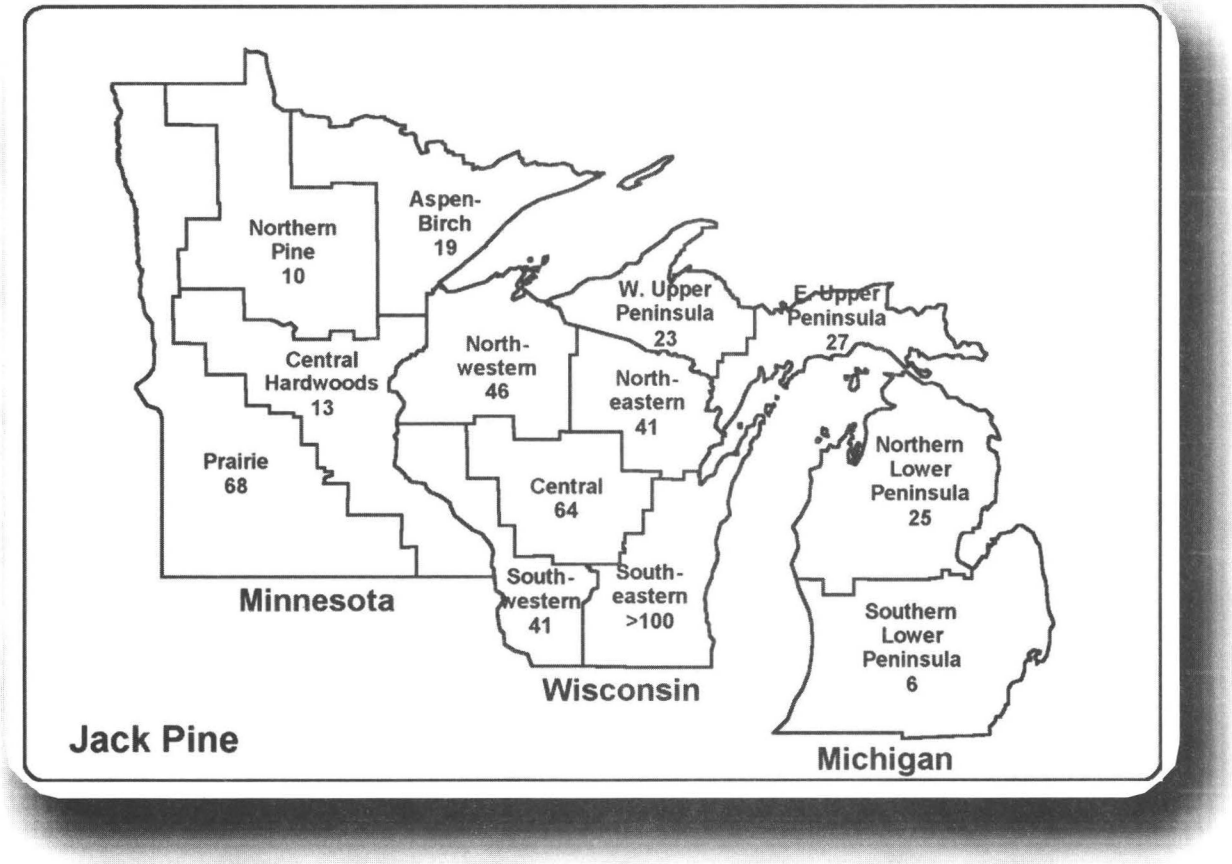
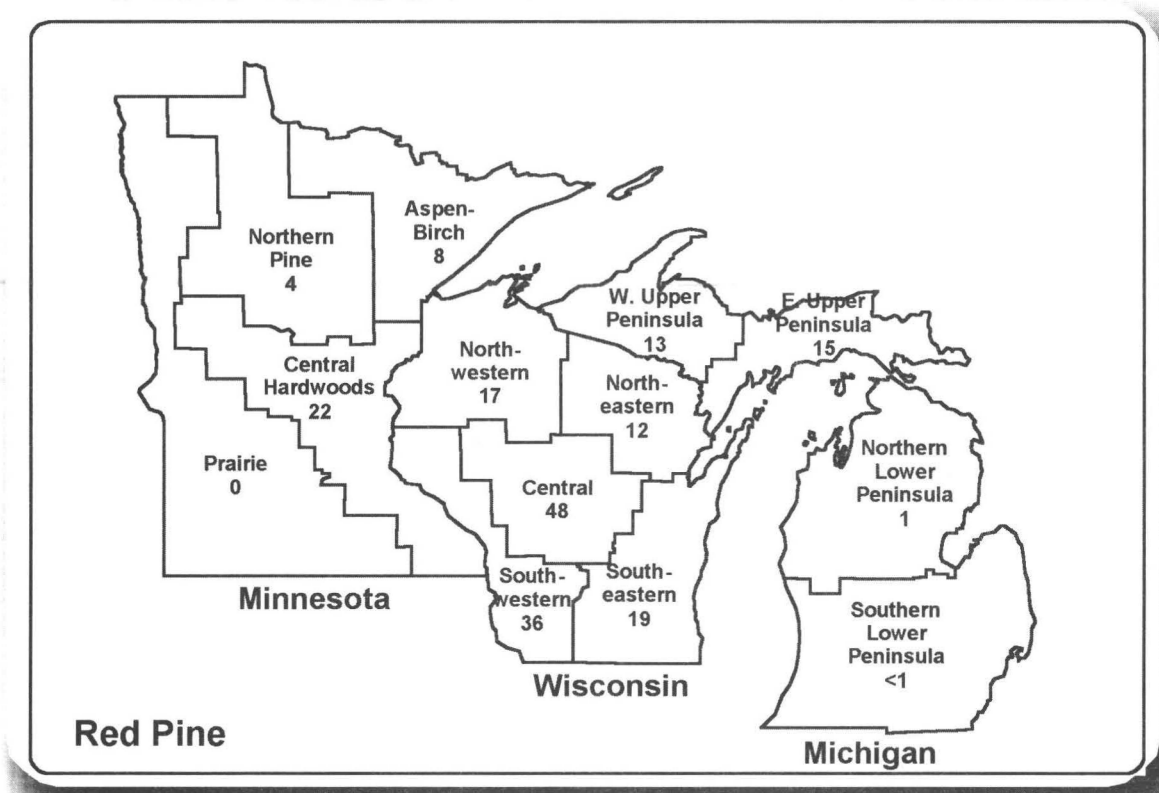
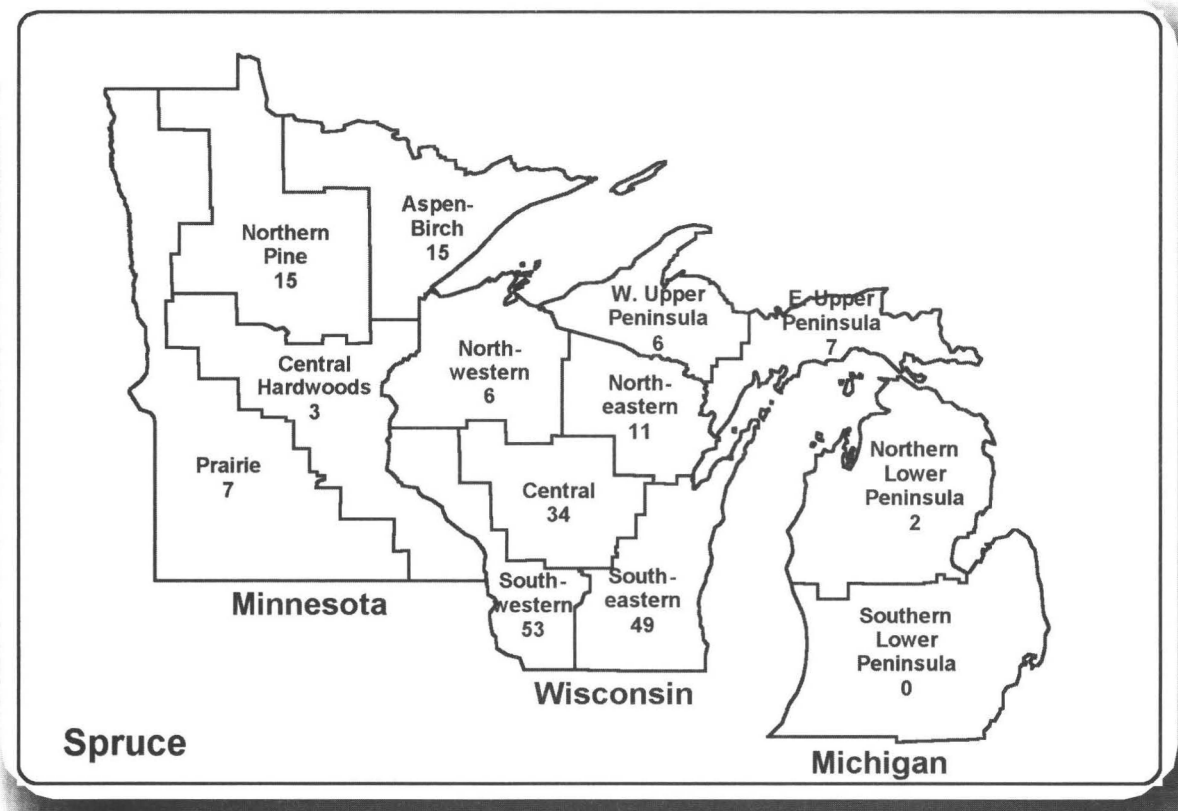
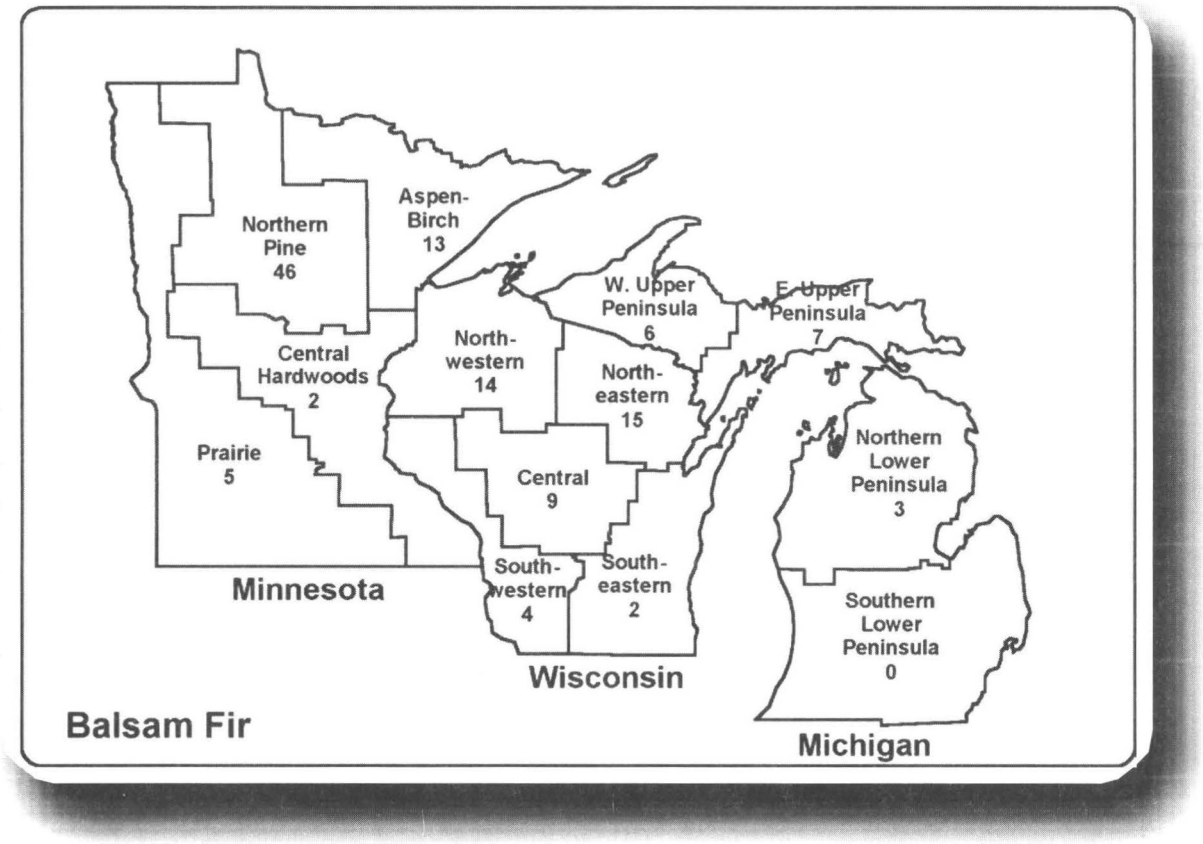
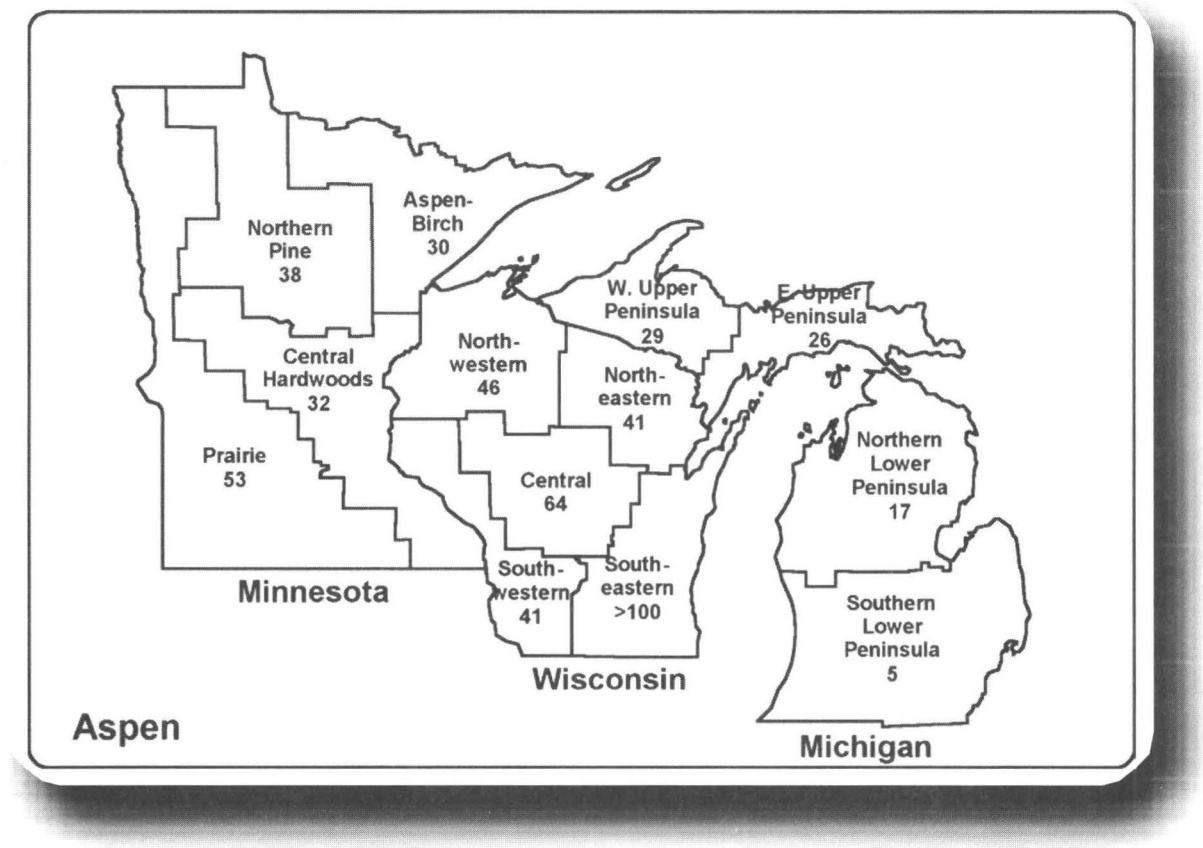


Figure 12.—*Cords of roundwood pulpwood (including chips from roundwood) harvested per 1,000 cords of growing-stock volume for each of five principal pulpwood species by Forest Survey Unit, 2001. Growing-stock volume was determined during the last forest inventory for each State.*


Northern Pine 4
Aspen-Birch 8
W. Upper Peninsula 13
E. Upper Peninsula 15
Central Hardwoods 22
North-western 17
North-eastern 12
Prairie 0
Central 48
Northern Lower Peninsula 1
South-western 36
South-eastern 19
Southern Lower Peninsula <1
Minnesota
Wisconsin
Michigan
Red Pine


Northern Pine 15
Aspen-Birch 15
W. Upper Peninsula 6
E. Upper Peninsula 7
Central Hardwoods 3
North-western 6
North-eastern 11
Prairie 7
Central 34
Northern Lower Peninsula 2
South-western 53
South-eastern 49
Southern Lower Peninsula 0
Minnesota
Wisconsin
Michigan
Spruce


Northern Pine 46
Aspen-Birch 13
W. Upper Peninsula 6
E. Upper Peninsula 7
Central Hardwoods 2
North-western 14
North-eastern 15
Prairie 5
Central 9
Northern Lower Peninsula 3
South-western 4
South-eastern 2
Southern Lower Peninsula 0
Minnesota
Wisconsin
Michigan
Balsam Fir


Northern Pine 38
Aspen-Birch 30
W. Upper Peninsula 29
E. Upper Peninsula 26
Central Hardwoods 32
North-western 46
North-eastern 41
Prairie 53
Central 64
Northern Lower Peninsula 17
South-western 41
South-eastern >100
Southern Lower Peninsula 5
Minnesota
Wisconsin
Michigan
Aspen

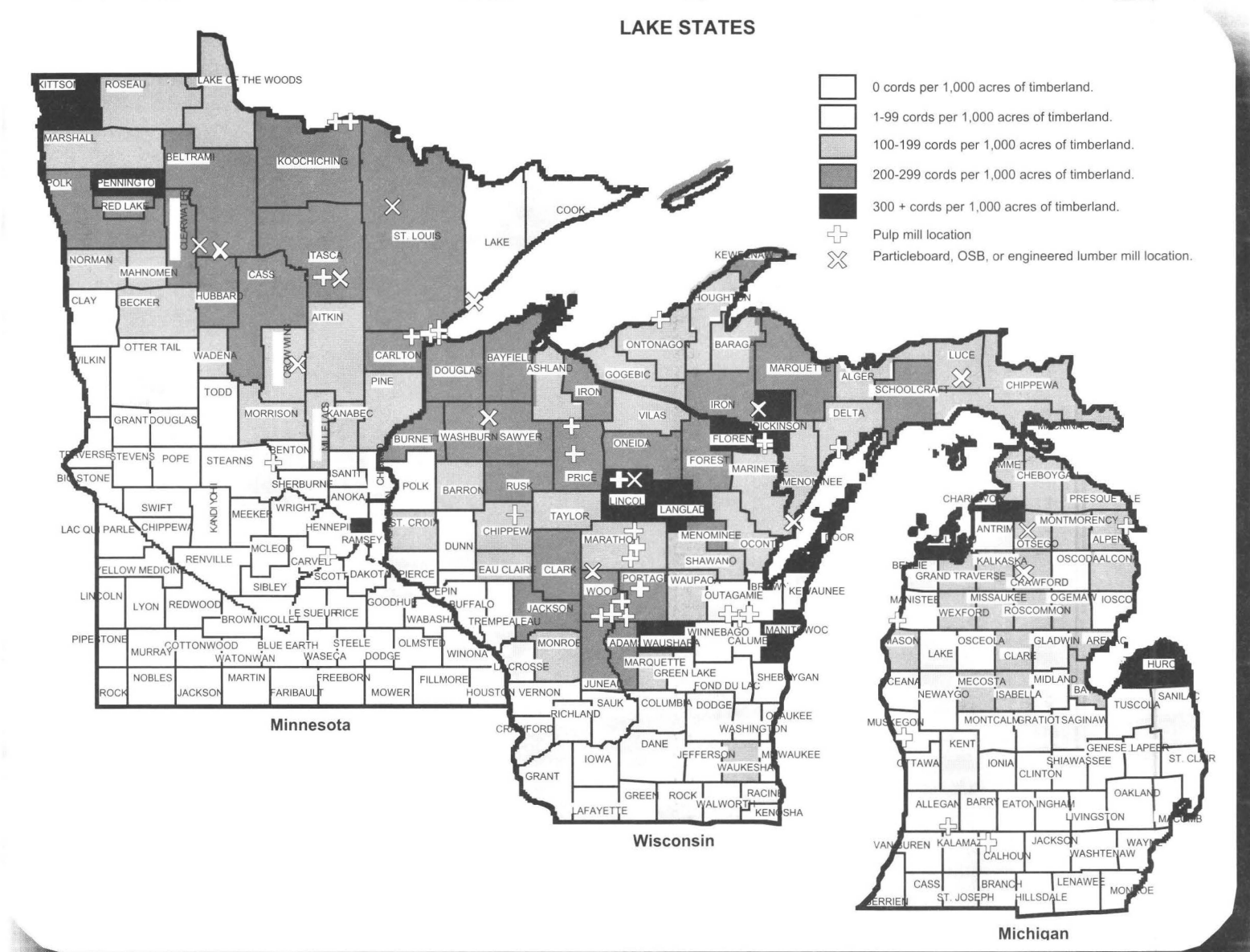

LAKE STATES
0 cords per 1,000 acres of timberland.
1-99 cords per 1,000 acres of timberland.
100-199 cords per 1,000 acres of timberland.
200-299 cords per 1,000 acres of timberland.
300 + cords per 1,000 acres of timberland.
Pulp mill location
Particleboard, OSB, or engineered lumber mill location.
Minnesota
Wisconsin
Michigan

Figure 13.—*Cords of pulpwood cut per 1,000 acres of timberland by county, 2001. Acres of timberland (stocking of trees greater than 10 percent) were determined during the last inventory in each State. Locations of active pulp and particleboard mills are shown.*

Pulpwood harvesting was most intensive (100,000 cords or more) in the following Forest Survey Units by species:

Species	State	Forest Survey Unit
Balsam fir	Minnesota	Aspen-Birch
Jack pine	Wisconsin	Central
Red pine	Wisconsin	Central
Spruce	Minnesota	Aspen-Birch
Aspen	Michigan	N. Lower Peninsula, W. Upper Peninsula, E. Upper Peninsula
	Minnesota	Northern Pine, Aspen-Birch, Central Hardwood
	Wisconsin	Northwestern, Northeastern, Central
White birch	Wisconsin	Northwestern
Hard maple	Michigan	W. Upper Peninsula
	Wisconsin	Northeastern, Northwestern
Soft maple	Michigan	N. Lower Peninsula, W. Upper Peninsula
	Wisconsin	Northwestern, Northeastern

RECEIPTS

- In 2001, 32 wood pulp and 14 particleboard mills in the Lake States acquired 9.7 million cords of pulpwood, a decrease of almost 3 percent from 2000.
- Aspen roundwood was processed at 35 of the 46 pulp and particleboard plants in the Lake States in 2001 (fig. 14, table 8).
- In 2001, Wisconsin supplied wood to 35 mills, Michigan supplied 34 mills, and Minnesota supplied 26 mills.
- Total imports of all wood material from outside the Lake States in 2001 were 689 thousand cords, an increase of over 50 percent from 2000. Canada contributed 86 percent of the total import receipts.

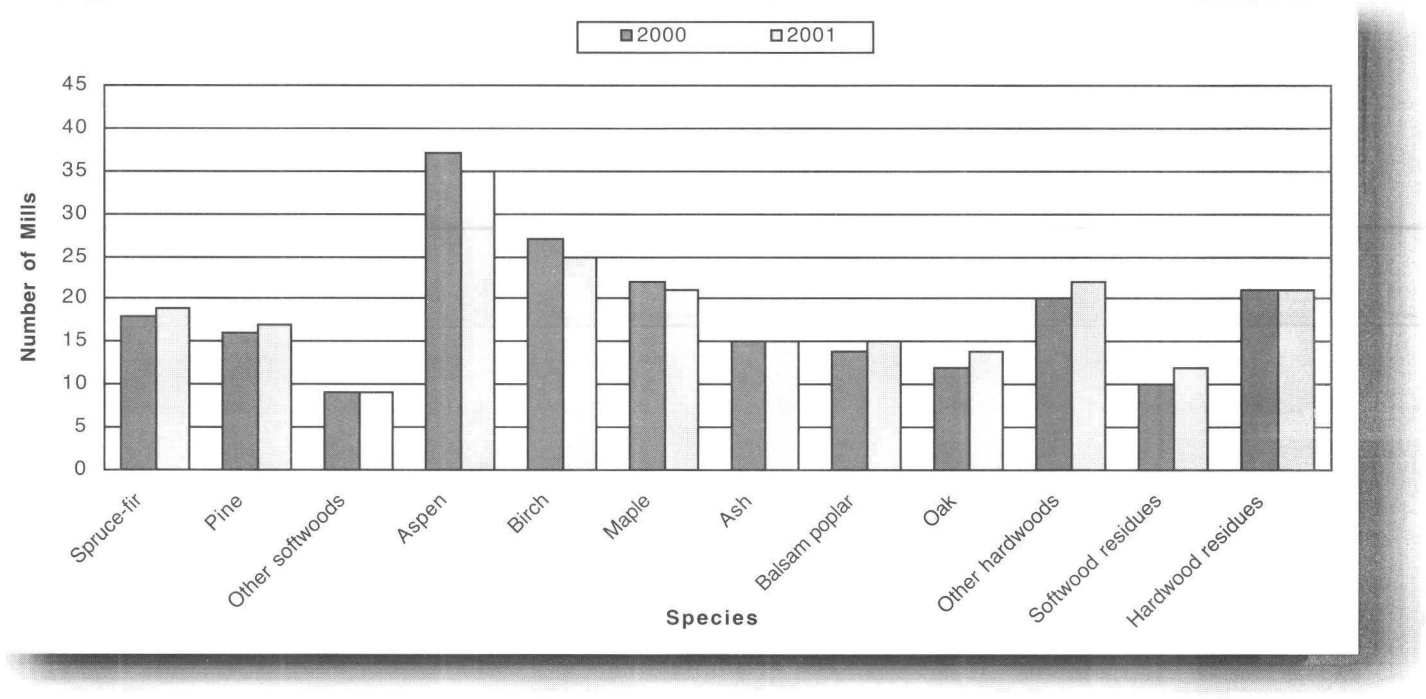


Figure 14.—*Numbers of industrial plants in the Lake States using a particular species or residue for pulping and particleboard, 2000-2001.*

- Imports of aspen roundwood from Canada to Lake States pulp and particleboard mills increased by over 80 percent in 2001, going from 222 thousand cords in 2000 to 402 thousand cords in 2001.

- Imports of residues increased by 14 percent between 2000 and 2001. Canada replaced the Plains States as the major source of mill residue imports for pulpwood production in 2001, supplying almost 47 percent of the total residues imported by mills in the Lake States.

Michigan

- The eight Michigan pulp mills, three OSB mills, and one particleboard mill consumed 2.9 million cords in 2001, down 4 percent from the previous year. Almost 12 percent of the total wood material consumed was imported from out of State, mainly from Wisconsin.

Minnesota

- The eight pulp mills, five OSB mills, and one laminated structural lumber mill in Minnesota reported consuming 3.2 million cords in 2001, an increase of 1 percent from 2000. Minnesota's pulp and particleboard mills acquired 18 percent of their raw material from out-of-State sources. Canada supplied 75 percent of the imported wood material.

Wisconsin

- The 16 pulp mills, 2 OSB mills, and 2 particleboard mills in Wisconsin consumed 3.6 million cords in 2001, a decline of 4 percent from 2000. Almost 19 percent of the total receipts were imported from out of State.

INDUSTRY TRENDS AND ANALYSIS

Pulp Mills

For this section, pulp mill products include wood fiber products such as paper, paperboard, hardboard, insulation board, and medium-density fiberboard. All of these products are manufactured from wood that has been reduced to individual fibers, small fiber bundles, or fiber parts that are subsequently formed into a mat. Wood material from the Lake States sent to mills in other States and Canada is included.

- Of the 9.0 million cords of pulpwood produced in the Lake States in 2001, 6.5 million cords (72 percent) were used for wood pulp products. Overall, 88 percent came from roundwood and 12 percent came from mill residues.

- Principal species harvested for pulp in the Lake States in 2001 were aspen (1.7 million cords), soft maple (666 thousand cords), hard maple (635 thousand cords), and jack pine and red pine (395 thousand cords each) (fig. 15).

- Hardwoods were still the mainstays of the pulp mills in the region in 2001 with hardwood roundwood contributing 62 percent of total raw material needs and hardwood residues supplying another 7 percent.

- Lake States softwood roundwood production for pulp mills decreased by 1 percent between 2000 and 2001. Softwood residues from the Lake States primary wood processors used by pulp mills increased by 8 percent from the previous year.

- Average daily wood pulp production in 2001 fell to 14.3 thousand tons of pulp per day, down from 14.5 thousand tons per day in 2000 (table 9).

- Lake States pulpwood production for pulp mills during the period 1997-2001 is shown in table A.

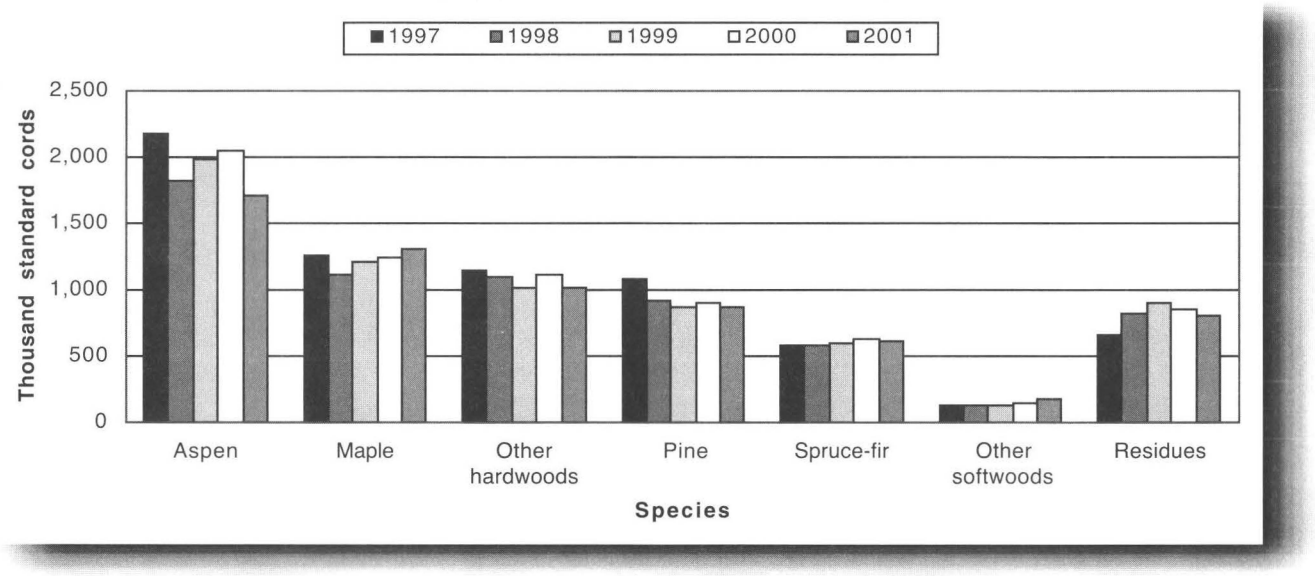


Figure 15.—*Pulpwood production in the Lake States for pulp by species group and residues, 1997-2001.*

Table A.—*Lake States pulpwood production for pulp mills, 1997-2001*

Product form and species group	Production				
	1997	1998	1999	2000	2001
	(Thousand cords)				
Roundwood					
Softwoods	1,788	1,627	1,599	1,674	1,658
Aspen	2,036	1,825	1,981	2,045	1,707
Other hardwoods	2,268	2,198	2,232	2,354	2,320
Residue	649	813	867	852	804
Total	6,741	6,463	6,680	6,925	6,488

Michigan

- Pulpwood production for wood pulp was 2.0 million cords in 2001, a decrease of 5 percent from 2000.
- Aspen and soft maple were the two major pulpwood species groups harvested in the State in 2001 with 309 thousand cords each. These two species groups accounted for over one-third of the total roundwood harvested.
- Michigan mills imported 258 thousand cords of pulpwood, or 13 percent of the wood material used for the production of wood pulp by Michigan wood pulp mills. Michigan exported 307 thousand cords to wood pulp mills in Minnesota, Wisconsin, and Canada.
- Michigan mills used 1.5 million cords of hardwood material in 2001, a decrease of 7 percent from 2000. The use of softwood material increased by 19 percent to 467 thousand cords during the same period.

Minnesota

- Pulpwood production for wood pulp totaled 1.6 million cords in 2001, a decrease of 12 percent from 2000.
- In 2001, aspen remained the predominant species harvested in the State with 870 thousand cords, or 58 percent of the total roundwood produced. Other major species harvested were spruce with 199 thousand cords and balsam fir with 165 thousand cords.
- Mills in Minnesota imported 480 thousand cords of wood material for pulp products (339 thousand cords from Canada, 133 thousand cords from Wisconsin, and 8 thousand cords from Michigan). Minnesota exported 156 thousand cords to pulp mills in Wisconsin and 22 thousand cords to pulp mills in Canada.
- Minnesota mills had a 4-percent decrease in the use of hardwood material, from 1.5 million cords in 2000 to 1.4 million cords in 2001. The use of softwood material increased by almost 2 percent to 471 thousand cords in 2001.

Wisconsin

- Pulpwood production for wood pulp products decreased by 4 percent, from 3.0 million cords in 2000 to 2.9 million cords in 2001.
- Aspen was the main species harvested with 526 thousand cords. Other major species harvested were hard maple (334 thousand cords), soft maple (315 thousand cords), red pine (281 thousand cords), jack pine (240 thousand cords), and white birch (200 thousand cords).
- Wisconsin mills imported 575 thousand cords of pulpwood: 278 thousand cords from Michigan, 155 thousand cords from Minnesota, 84 thousand cords from other States, and 58

thousand cords from Canada. Wisconsin exported 236 thousand cords to Michigan, 133 thousand cords to Minnesota, and 4 thousand cords to other States and Canada combined.

- Wisconsin pulp mills decreased the use of hardwood material by 5 percent between 2000 and 2001, and decreased the use of softwood material by 6 percent.

Particleboard Mills

Particleboard is a generic term for a panel manufactured from lignocellulosic material—commonly wood—essentially in the form of particles (as distinct from fibers). These materials are bonded together with synthetic resin or other suitable binder under heat and pressure by a process wherein the inter-particle bonds are created wholly by the added binder. Other materials may have been added during manufacture to improve certain properties. The many types of particleboard differ greatly in regard to size and geometry of the particle, the amount of resin (adhesive) used, and the density to which the panel is pressed. Products included in the particleboard group include particleboard, waferboard. oriented strandboard (OSB), and engineered lumber. The major types of particles used for particleboard are shavings, flakes, wafers, chips, sawdust, strands, slivers, and wood wool (excelsior). Much of the particleboard in the U.S. is made from residues (shavings, sawdust, or chips). Waferboard, OSB, and engineered lumber are examples of products requiring that the particles be cut from solid wood (saw logs or pulpwood). Wood material from the Lake States sent to mills in other States and Canada is included.

- The Lake States produced 2.6 million cords of pulpwood in 2001 for particleboard products, down 3 percent from 2000. For every cord of pulpwood used in particleboard manufacture, 96 percent came from roundwood and 4 percent came from the residues of other wood-using plants.

- Principal species harvested for particleboard products were aspen (1.9 million cords), white birch (151 thousand cords), jack pine (125 thousand cords), and soft maple (91 thousand cords) (fig. 16).

- In 2001, the Lake States produced 174 thousand cords of softwood roundwood and 2.3 million cords of hardwood roundwood for processing at particleboard plants. Roundwood production for the manufacture of particle-board products fell by 1 percent between 2000 and 2001. All the roundwood that was harvested in the Lake States for particleboard production stayed in the region.

- The Lake States in 2001 produced 26 thousand cords of softwood residues and 82 thousand cords of hardwood residues for use in particle-board production. Between 2000 and 2001, the use of residues for particleboard production decreased by 30 percent.

- Annual production at Lake States particleboard plants fell from 2,019 million square feet 3/4-inch basis in 2000 to 1,987 million square feet 3/4-inch basis in 2001 (table 10).

- Lake States pulpwood production for particle-board mills during 1997-2001 is shown in table B.

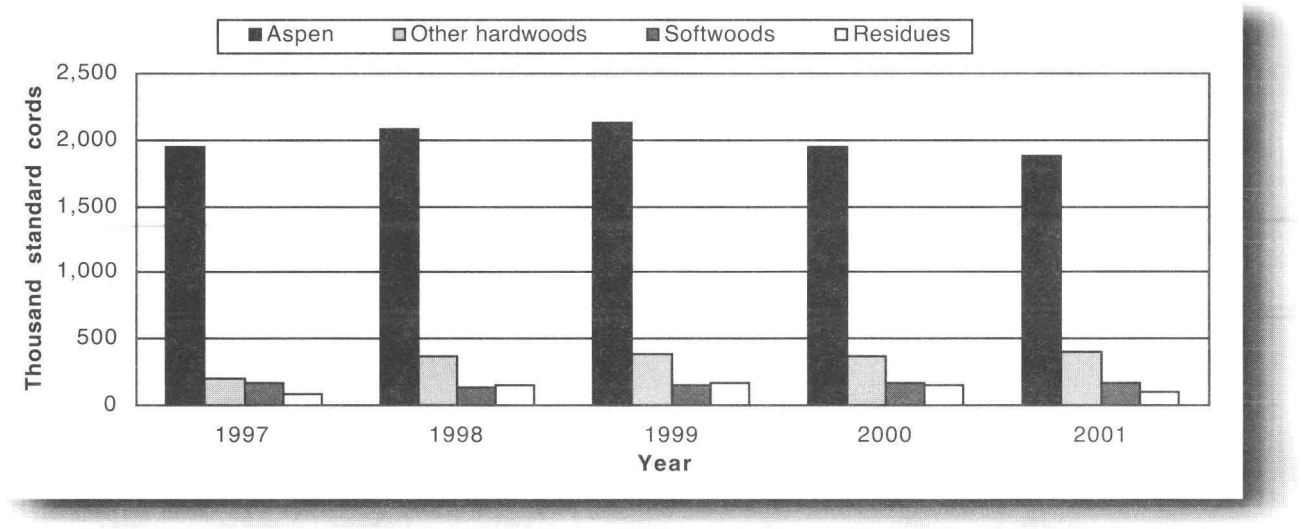


Figure 16.—*Pulpwood production for particleboard in the Lake States, 1997-2001.*

Michigan

- In 2001, the harvest of roundwood from Michigan forest land provided 813 thousand cords of wood for particleboard products, of which 111 thousand cords were softwoods and 702 thousand cords were hardwoods. Residues from Michigan's primary wood-using mills provided another 42 thousand cords of wood material that were used to produce particleboard products.

- The particleboard mills in Michigan imported 41 thousand cords from Canada and 38 thousand cords from Wisconsin. Exports of all wood material for particleboard production amounted to 22 thousand cords.

Minnesota

- Minnesota accounted for almost half (49 percent) of all the wood material produced in the Lake States for particleboard plants in 2001. Roundwood logged for particleboard products totaled 1.2 million cords, and aspen was the predominant species cut (1.0 million cords). Minnesota supplied less than 1 thousand cords of mill residues for particleboard production.

Table B.—*Lake States pulpwood production for particleboard mills, 1997-2001*

Product form and species	Production				
	1997	1998	1999	2000	2001
	(Thousand cords)				
Roundwood					
Softwoods	161	135	152	159	174
Aspen	1,946	2,078	2,139	1,939	1,880
Other hardwoods	306	362	380	374	396
Residue	86	172	205	156	108
Total	2,499	2,748	2,876	2,628	2,558

- The particleboard mills in Minnesota imported 109 thousand cords from Canada and 5 thousand cords from Wisconsin and North Dakota combined. In 2001, raw materials exported from the State for particleboard manufacturing totaled 31 thousand cords, all of which went to Wisconsin.

Wisconsin

- In 2001, Wisconsin forest land produced 391 thousand cords of roundwood for particleboard manufacturing, of which 16 thousand cords were softwood and 375 thousand cords were hardwood. Wisconsin's primary wood processing mills provided an additional 66 thousand cords of plant byproducts to the particleboard industry.

- The mills in Wisconsin imported almost 86 thousand cords of wood for particleboard manufacturing: 33 thousand cords from Canada, 31 thousand cords from Minnesota, and 22 thousand cords from Michigan. Wisconsin exported 38 thousand cords to Michigan particleboard mills and 1 thousand cords to Minnesota particleboard mills in 2001.

Industry News

Major mill expansion, new construction, consolidations, name changes, and closures are as follows:

- The Champion International Corp. mills at Quinnesec, MI, and Sartell, MN, were acquired by and their names were changed to International Paper Co. in June of 2000.

- Weyerhaeuser Co. sold its custom architectural door division, based in Marshfield, WI, to Wind Point Partners in December of 2000. The mill was renamed Marshfield DoorSystems.

- Domtar Inc. purchased the Georgia-Pacific Corp. pulp mills in Nekoosa and Port Edwards, WI, in August of 2001. The names of the two mills were changed to Domtar Industries, Inc.

- Appleton Coated LLC's pulp mill at Combined Locks, WI, was closed in December of 2001.

- Georgia-Pacific Corp.'s hardboard pulp mill at Superior, WI, was closed in December of 2001.

- Cornell Felt Acquisition of Beloit bought the Globe Building Materials plant at Cornell, WI, in January of 2001. Mule-Hide Dry Felt Manufacturing, a subsidiary of ABC Supply Co. in Beloit, leased and began operating the plant in March of 2002.

- Aspen Bay Pulp and Fibre plans to build the first bleached chemi-thermomechanical pulp mill in the U.S. in Menominee, MI. Construction on the 215,000 tpy (tons per year) mill has not yet begun.

CENTRAL STATES

PRODUCTION

- Pulpwood production in the Central States (Illinois, Indiana, Iowa, and Missouri) decreased by 10 percent—from 520 thousand cords in 2000 to 469 thousand cords in 2001.

- Central States pulpwood production from roundwood decreased by 30 percent while residues from primary wood processing mills in the region used for the production of pulpwood increased by 7 percent.

- Residues from primary wood processing mills in the Central States accounted for 65 percent of the total wood material produced in the Central States for the pulp and particleboard industry in 2001 (table 11).

- Pulpwood production from soft hardwood[6] roundwood fell from 64 thousand cords in 2000 to 51 thousand cords in 2001, and hard hardwood[7] production fell from 166 thousand cords to 113 thousand cords (fig. 17, table 12).

- Exports of roundwood and residues from the Central States in 2001 accounted for 69 percent of all wood material produced in the region for pulpwood production. Roundwood exports totaled 105 thousand cords, and the export of residues from other wood-using mills totaled 217 thousand cords.

[6] *Hardwood species with an average specific gravity of 0.50 or less.*

[7] *Hardwood species with an average specific gravity greater than 0.50.*

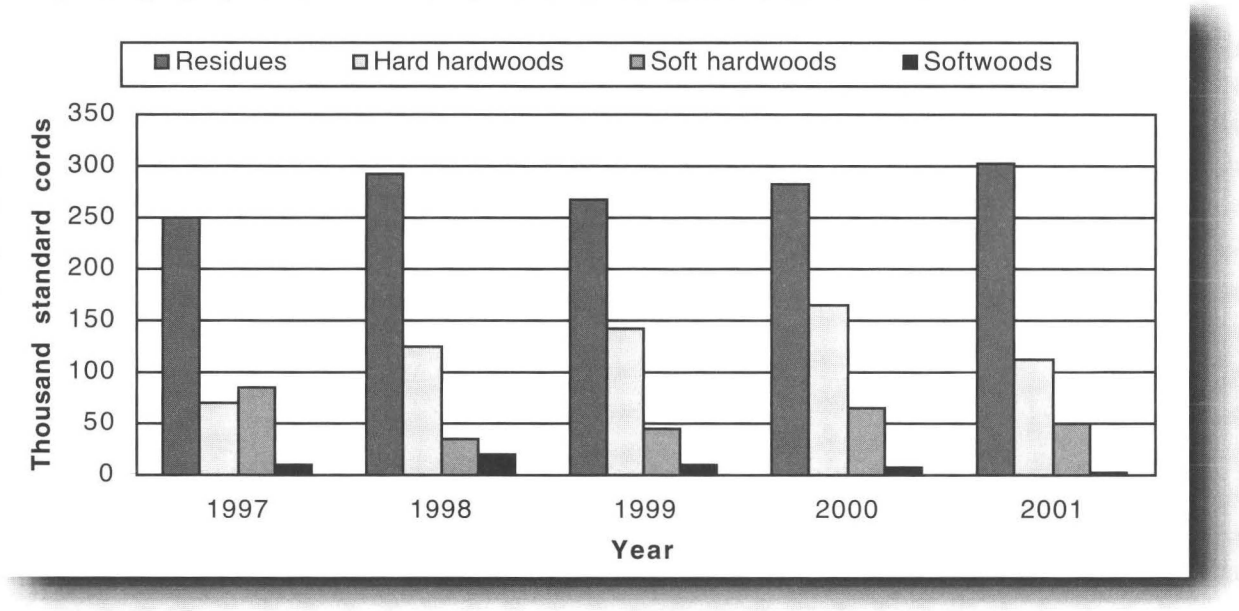


Figure 17.—*Pulpwood production in the Central States, 1997-2001.*

- Loggers harvested pulpwood in 18 counties in Illinois, 13 counties in Indiana, 8 counties in Iowa, and 10 counties in Missouri (fig. 18).

- Pulpwood production from whole-tree chips decreased by 8 percent between 2000 and 2001. The 54 thousand cords of whole-tree chips made up almost one-third of the total roundwood produced in the Central States in 2001.

Illinois

- Illinois does not have any primary wood pulp or particleboard mills; consequently, all pulpwood harvested and residues produced by primary wood processing mills, which are utilized by pulp or particleboard mills, are shipped to plants outside the State.

- Illinois produced 75 thousand cords of pulpwood in 2001, a decrease of 19 percent from the previous year (table 13).

- Illinois produced the largest volume of pulpwood roundwood in the Central States in 2001, supplying 39 percent of the Central States total roundwood production. Pulpwood production from residues accounted for only 3 percent of the region's total residue production. Overall, Illinois contributed 18 percent of the total pulpwood produced in the Central States in 2001 (fig. 19).

Indiana

- Pulpwood production in Indiana accounted for 34 percent of the total pulpwood produced in the Central States region in 2001. The 160 thousand cords of wood material produced in Indiana in 2001 was a 5-percent decrease from the 2000 level of 168 thousand cords.

- Roundwood production decreased by almost 50 percent, falling from 45 thousand cords in 2000 to 23 thousand cords in 2001. Residue production increased by 11 percent, rising from 123 thousand cords in 2000 to 137 thousand cords in 2001.

Iowa

- Iowa's total pulpwood production in 2001 was 44 thousand cords, a decrease of 8 percent from 2000. The State contributed 9 percent of the region's total pulpwood produced.

- Roundwood from Iowa accounted for 10 percent of the Central States total roundwood production in 2001.

- Residues accounted for over 60 percent of Iowa's pulpwood production in 2001.

Missouri

- Missouri remained the largest producer of pulpwood in the Central States in 2001 with 41 percent of the region's total, or 190 thousand cords. The production of pulpwood in Missouri decreased by 10 percent between 2000 and 2001.

- Missouri was the Central States' second largest producer of both roundwood for pulpwood and residues from primary wood processing plants used for pulpwood production in 2001. The State produced 62 thousand cords of roundwood and 128 thousand cords of residues.

- Missouri exported 92 percent (175 thousand cords) of the State's pulpwood production to mills in the Southern States.

Figure 18.—*Production of pulpwood from roundwood (including chips from roundwood) in the Central States by county, in standard cords, 2001. Locations of active Central States mills are shown.*

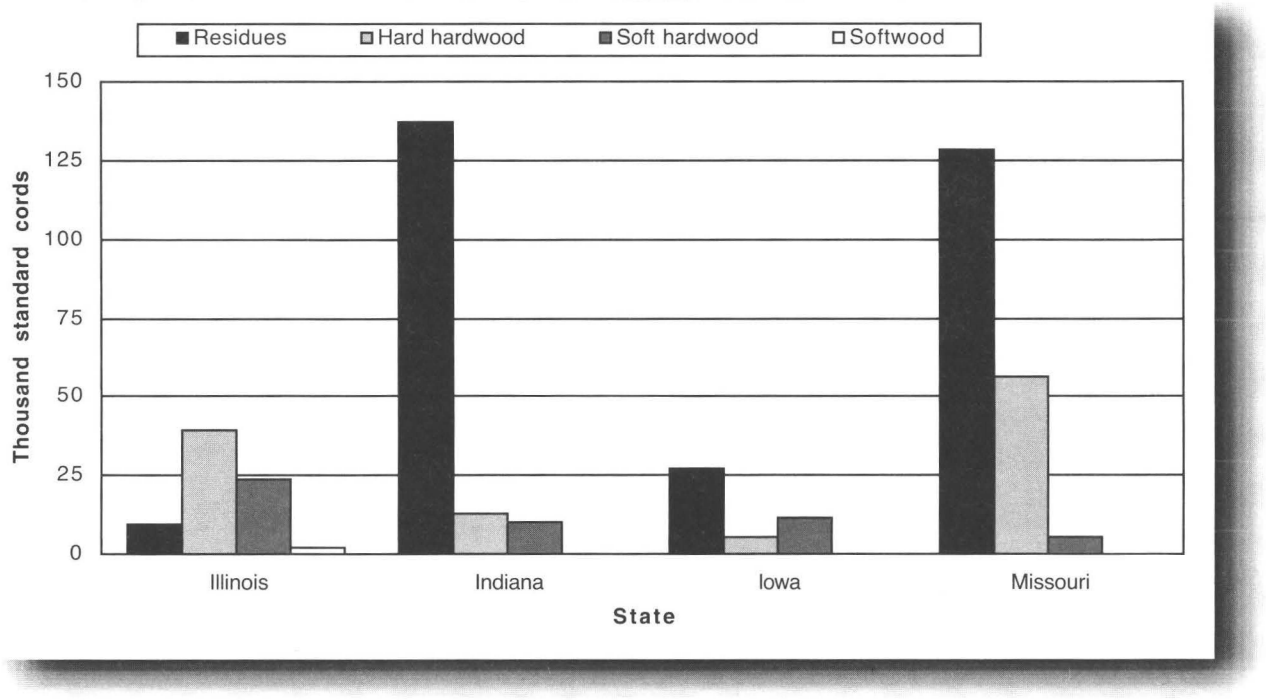


Figure 19.—*Central States pulpwood production by species group and residues, 2001.*

RECEIPTS

Due to the limited number of pulp mills in the Central States, individual State receipts are not provided to avoid disclosure of individual mills

- Pulp mills in the Central States received 175 thousand cords in 2001, a decrease of less than 1 percent from 2000.
- Roundwood receipts decreased by 14 percent, from 71 thousand cords in 2000 to 61 thousand cords in 2001. Residue receipts increased by 8 percent, from 106 thousand cords in 2000 to 115 thousand cords in 2001.
- Softwood roundwood was not used for pulpwood by the Central States pulp mills.
- In 2001, only 37 percent of the roundwood and 28 percent of the residues produced for pulpwood in the Central States went to pulp mills located in the Central States.
- Hardwood residue from sawmills and other wood-using mills accounted for 51 percent of all the wood material used by the Central States pulp mills. It continues to be the dominant form of wood material procured.
- Huebert Fiberboard Co., Boonville, MO, was bought and its name was changed to Huebert Brothers Products in 2000.

INDUSTRY TRENDS AND ANALYSIS

- Average daily wood pulp production decreased from 498 tons in 2000 to 490 tons in 2001 (table 14).

PLAINS STATES

PRODUCTION

- In 2001, the Plains States produced 114 thousand cords of roundwood and mill residues for pulpwood production, a decrease of 7 percent from 2000 (fig. 20). Pulpwood came from Kansas, North Dakota, and South Dakota.

- Softwood residues accounted for 86 percent of the pulpwood production for the Plains States in 2001 (fig. 21), most of which came from South Dakota.

- The Plains States exported 5 thousand cords, or 30 percent of the total roundwood production, to Minnesota in 2001. Almost half of the residues produced in the Plains States and used for pulpwood production went to pulp or particleboard mills in Wisconsin.

- The only mill in the Plains States in 2001 was Merillat Industries, Inc. (particleboard), in Rapid City, SD, which has an annual production capacity of 95 million square feet 3/4-inch basis.

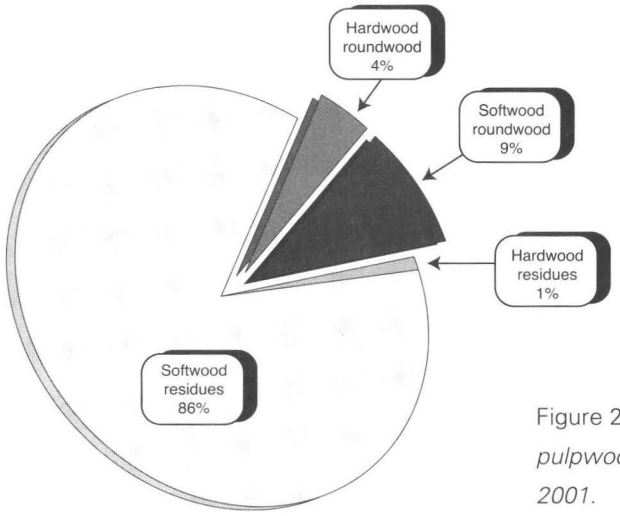


Figure 21.—*Plains States pulpwood production, 2001.*

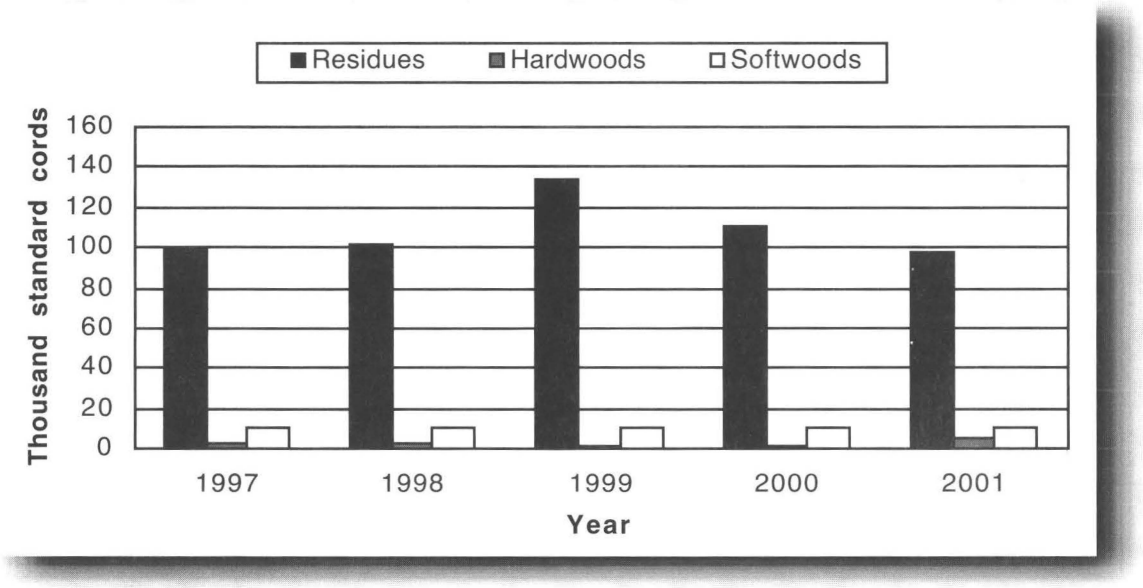


Figure 20.—*Pulpwood production in the Plains States, 1997-2001.*

APPENDIX

Conversion Factors Used In The North-Central Region

Standard cords of green roundwood per green ton:

Species	Factor	Species	Factor
Softwoods	0.4688	Hardwoods (continued)	
Northern white-cedar	.6329	White birch	0.4018
Balsam fir	.4688	Yellow birch	.3723
Hemlock	.4150	River birch	.3871
Jack pine	.4688	Sweetgum	.3669
Red pine	.4688	Yellow-poplar	.4219
White pine	.4777	Blackgum	.3779
Shortleaf pine	.3956	Sycamore	.4083
Spruce	.5014	Cottonwood	.4291
Tamarack	.4291	Elm	.4018
Hardwoods	.3939	Hickory	.3701
Soft hardwoods	.4171	Hard maple	.3617
Hard hardwoods	.3708	Soft maple	.4083
Ash	.4330	Black cherry	.4688
Aspen	.4291	Red oak	.3444
Balsam poplar	.4083	White oak	.3723
Basswood	.5167	Black oak	.3444
Beech	.3956	Other hardwoods	.4777

TABLE TITLES

Table 1.—*Production and imports of pulpwood, Lake States, 2001*

Table 2.—*Lake States pulpwood production by State of origin, year, and destination, 1997-2001*

Table 3.—*Lake States pulpwood production from roundwood by State, Forest Survey Unit, and species group, 1997-2001*

Table 4.—*Lake States pulpwood production by State of origin, product form, Forest Survey Unit, and destination, 2001*

Table 5.—*Pulpwood production from roundwood by Forest Survey Unit, county, and species group, Michigan, 2001*

Table 6.—*Pulpwood production from roundwood by Forest Survey Unit, county, and species group, Minnesota, 2001*

Table 7.—*Pulpwood production from roundwood by Forest Survey Unit, county, and species group, Wisconsin, 20001*

Table 8.—*Number of industrial pulp or particleboard plants in the Lake States by product form, species group used, and State, 2001*

Table 9.—*Average daily production of active wood pulp mills in the Lake States by State, company, location, and type of pulp produced, 2001*

Table 10.—*Annual production of active particleboard mills in the Lake States by State, company, location, and product produced, 2001*

Table 11.—*Production and imports of pulpwood, Central States, 2001*

Table 12.—*Central States pulpwood production by product form and species group, 1997-2001*

Table 13.—*Central States pulpwood production by State and destination, 1997-2001*

Table 14.—*Average daily production of active wood pulp mills in the Central States by company, location, and type of pulp produced, 2001*

Table 1.--Production and imports of pulpwood, Lake States, 2001

(In standard cords, unpeeled)

Product form, species group, and destination	Production by State [1]			Regional Total	Imports				Total imports	Total receipts
	Michigan	Minnesota	Wisconsin		Central States	Plains States	Other U.S. [2]	Canada		
Softwood roundwood										
Northern white-cedar										
Michigan	5,368	–	303	5,670	–	–	–	–	–	5,670
Total	5,368	–	303	5,670	–	–	–	–	–	5,670
Balsam fir										
Canada	4,717	–	–	4,717	–	–	–	–	–	–
Michigan	44,780	–	2,533	47,313	–	–	–	–	–	47,313
Minnesota	3,331	169,671	17,819	190,821	–	–	–	130	130	190,951
Wisconsin	11,281	928	64,007	76,215	–	–	–	40	40	76,255
Total	64,109	170,599	84,359	319,067	–	–	–	170	170	314,520
Hemlock										
Michigan	84,235	–	8,131	92,366	–	–	–	–	–	92,366
Wisconsin	3,348	–	12,877	16,225	–	–	–	–	–	16,225
Total	87,583	–	21,008	108,591	–	–	–	–	–	108,591
Jack pine										
Canada	–	7,154	–	7,154	–	–	–	–	–	–
Michigan	178,084	–	3,132	181,215	–	–	–	–	–	181,215
Minnesota	–	64,847	2,053	66,900	–	22	–	16,194	16,216	83,116
Wisconsin	6,947	17,195	239,974	264,115	–	–	–	–	–	264,115
Total	185,030	89,195	245,159	519,385	–	22	–	16,194	16,216	528,446
Red pine										
Michigan	86,164	–	1,995	88,159	–	–	–	–	–	88,159
Minnesota	–	42,587	3,803	46,390	–	–	–	1,202	1,202	47,592
Wisconsin	6,307	4,487	278,821	289,614	625	–	–	–	625	290,239
Total	92,471	47,074	284,618	424,163	625	–	–	1,202	1,827	425,990
White pine										
Michigan	4,716	–	298	5,014	–	–	–	–	–	5,014
Minnesota	–	1,274	146	1,420	–	–	–	12	12	1,432
Wisconsin	1,577	242	69,405	71,224	380	–	–	–	380	71,605
Total	6,294	1,516	69,849	77,659	380	–	–	12	392	78,051
Spruce										
Canada	7,848	1,149	–	8,997	–	–	–	–	–	–
Michigan	32,531	–	1,360	33,892	–	–	–	–	–	33,892
Minnesota	–	143,911	3,255	147,166	–	–	–	7,755	7,755	154,921
Wisconsin	20,341	54,566	44,364	119,271	–	–	–	11,430	11,430	130,700
Total	60,720	199,627	48,979	309,326	–	–	–	19,184	19,184	319,513

Tamarack										
Michigan	8,867	–	557	9,424	–	–	–	–	–	9,424
Minnesota	–	6,436	32	6,469	–	–	–	239	239	6,707
Wisconsin	853	39,187	11,541	51,581	–	–	–	3,930	3,930	55,511
Total	9,721	45,623	12,130	67,474	–	–	–	4,169	4,169	71,642
Total softwood roundwood										
Canada	12,565	8,304	–	20,869	–	–	–	–	–	–
Michigan	444,746	–	18,308	463,054	–	–	–	–	–	463,054
Minnesota	3,331	428,727	27,108	459,166	–	22	–	25,532	25,554	484,719
Wisconsin	50,654	116,605	720,988	888,246	1,005	–	–	15,399	16,404	904,650
Total	511,296	553,635	766,403	1,831,334	1,005	22	–	40,931	41,958	1,852,423
Softwood residues										
Canada	7,880	8,304	650	16,834	–	–	–	–	–	–
Michigan	125,605	–	4,361	129,966	–	–	–	–	–	129,966
Minnesota	–	32,507	1,337	33,844	–	–	–	64	64	33,908
Wisconsin	100,622	11	70,300	170,934	–	48,473	32,784	16,387	97,644	268,578
Total	234,107	40,822	76,649	351,578	–	48,473	32,784	16,451	97,708	432,452
Total softwood material										
Canada	20,445	16,607	650	37,703	–	–	–	–	–	–
Michigan	570,351	–	22,669	593,020	–	–	–	–	–	593,020
Minnesota	3,331	461,234	28,445	493,010	–	22	–	25,596	25,618	518,627
Wisconsin	151,276	116,616	791,288	1,059,180	1,005	48,473	32,784	31,786	114,048	1,173,228
Total	745,403	594,457	843,052	2,182,912	1,005	48,495	32,784	57,382	139,666	2,284,875

(Table 1 continued on next page)

(Table 1 continued)

Product form, species group, and destination	Production by State [1]			Regional Total	Imports				Total imports	Total receipts
	Michigan	Minnesota	Wisconsin		Central States	Plains States	Other U.S. [2]	Canada		
Hardwood roundwood										
Ash										
Michigan	25,230	–	4,415	29,645	–	–	–	260	260	29,905
Minnesota	–	227	–	227	–	–	–	–	–	227
Wisconsin	6,105	583	77,877	84,565	23	–	–	1,360	1,383	85,948
Total	31,335	810	82,292	114,437	23	–	–	1,620	1,642	116,079
Aspen										
Canada	–	2,756	–	2,756	–	–	–	–	–	–
Michigan	764,013	–	31,223	795,236	–	–	–	40,325	40,325	835,561
Minnesota	806	1,862,171	57,997	1,920,974	–	2,908	–	328,756	331,664	2,252,638
Wisconsin	60,911	30,205	776,042	867,157	–	–	–	33,062	33,062	900,220
Total	825,730	1,895,131	865,261	3,586,122	–	2,908	–	402,144	405,052	3,988,418
Balsam poplar										
Michigan	29,431	–	1,650	31,082	–	–	–	608	608	31,690
Minnesota	–	97,847	209	98,056	–	171	–	13,375	13,546	111,602
Wisconsin	–	–	354	354	–	–	–	–	–	354
Total	29,431	97,847	2,213	129,492	–	171	–	13,983	14,154	143,646
Basswood										
Michigan	48,495	–	13,340	61,836	–	–	–	465	465	62,301
Minnesota	79	9,148	946	10,173	–	–	–	3,306	3,306	13,479
Wisconsin	3,363	503	39,465	43,331	–	–	–	–	–	43,331
Total	51,937	9,651	53,751	115,340	–	–	–	3,771	3,771	119,111
Beech										
Michigan	29,519	–	10,025	39,544	–	–	–	593	593	40,138
Wisconsin	260	–	2,721	2,982	–	–	–	–	–	2,982
Total	29,779	–	12,747	42,526	–	–	–	593	593	43,120
White birch										
Michigan	95,643	–	20,633	116,276	–	–	–	1,205	1,205	117,481
Minnesota	–	120,115	5,747	125,862	–	–	–	629	629	126,491
Wisconsin	13,547	27,640	180,960	222,146	20	–	–	10,101	10,121	232,267
Total	109,189	147,755	207,339	464,283	20	–	–	11,936	11,956	476,239
Yellow birch										
Michigan	31,720	–	9,461	41,181	–	–	–	558	558	41,739
Wisconsin	1,159	–	18,082	19,241	–	–	–	–	–	19,241
Total	32,879	–	27,543	60,422	–	–	–	558	558	60,980
Cottonwood										
Minnesota	–	242	9	251	–	1,509	–	–	1,509	1,760
Wisconsin	115	–	715	829	–	–	–	–	–	829
Total	115	242	724	1,081	–	1,509	–	–	1,509	2,589

Elm										
Michigan	2,287	–	6	2,293	–	–	–	–	–	2,293
Wisconsin	1,659	–	49,232	50,891	–	–	–	–	–	50,891
Total	3,946	–	49,238	53,184	–	–	–	–	–	53,184
Hickory										
Michigan	2,791	–	–	2,791	–	–	–	–	–	2,791
Total	2,791	–	–	2,791	–	–	–	–	–	2,791
Hard maple										
Michigan	304,035	–	66,694	370,729	–	–	–	3,906	3,906	374,635
Minnesota	–	4,018	3,850	7,868	–	–	–	–	–	7,868
Wisconsin	23,066	2,368	269,028	294,463	67	–	–	4,636	4,703	299,166
Total	327,101	6,387	339,572	673,060	67	–	–	8,543	8,610	681,670
Soft maple										
Michigan	365,790	–	70,763	436,553	–	–	–	4,165	4,165	440,717
Minnesota	4,286	42,104	33,423	79,813	–	–	–	11,198	11,198	91,011
Wisconsin	16,649	1,234	222,508	240,391	76	–	–	4,250	4,326	244,717
Total	386,725	43,339	326,693	756,757	76	–	–	19,613	19,688	776,445
Red oak										
Michigan	46,027	–	5,212	51,238	–	–	–	310	310	51,548
Wisconsin	5,562	11	136,155	141,728	–	–	–	3,400	3,400	145,128
Total	51,588	11	141,367	192,966	–	–	–	3,710	3,710	196,676
White oak										
Michigan	24,775	–	–	24,775	–	–	–	–	–	24,775
Wisconsin	2,953	7	47,283	50,243	–	–	–	2,379	2,379	52,622
Total	27,729	7	47,283	75,018	–	–	–	2,379	2,379	77,397
Other hardwoods										
Michigan	23,799	–	4,885	28,684	–	–	–	287	287	28,971
Wisconsin	813	–	5,015	5,827	–	–	–	–	–	5,827
Total	24,611	–	9,900	34,511	–	–	–	287	287	34,798

(Table 1 continued on next page)

(Table 1 continued)

Product form, species group, and destination	Production by State [1]			Regional Total	Imports				Total imports	Total receipts
	Michigan	Minnesota	Wisconsin		Central States	Plains States	Other U.S. [2]	Canada		
Total hardwood roundwood										
Canada	–	2,756	–	2,756	–	–	–	–	–	–
Michigan	1,793,555	–	238,308	2,031,863	–	–	–	52,683	52,683	2,084,546
Minnesota	5,171	2,135,872	102,181	2,243,224	–	4,588	–	357,264	361,852	2,605,076
Wisconsin	136,161	62,552	1,825,436	2,024,149	185	–	–	59,189	59,374	2,083,522
Total	1,934,887	2,201,180	2,165,924	6,301,991	185	4,588	–	469,136	473,909	6,773,145
Hardwood residues										
Canada	–	2,756	–	2,756	–	–	–	–	–	–
Michigan	205,649	–	12,736	218,386	10,172	–	–	–	10,172	228,558
Minnesota	–	32,889	2,781	35,670	–	–	–	64,398	64,398	100,068
Other [3]	–	–	3,786	3,786	–	–	–	–	–	–
Wisconsin	11,744	7,433	280,781	299,958	1,222	–	–	–	1,222	301,180
Total	217,393	43,078	300,084	560,556	11,394	–	–	64,398	75,792	629,806
Total hardwood material										
Canada	–	5,511	–	5,511	–	–	–	–	–	–
Michigan	1,999,204	–	251,044	2,250,249	10,172	–	–	52,683	62,855	2,313,104
Minnesota	5,171	2,168,762	104,961	2,278,894	–	4,588	–	421,662	426,250	2,705,144
Other [3]	–	–	3,786	3,786	–	–	–	–	–	–
Wisconsin	147,905	69,985	2,106,217	2,324,106	1,407	–	–	59,189	60,596	2,384,702
Total	2,152,281	2,244,258	2,466,009	6,862,547	11,579	4,588	–	533,534	549,701	7,402,950
Total all roundwood										
Canada	12,565	11,059	–	23,624	–	–	–	–	–	–
Michigan	2,238,301	–	256,616	2,494,916	–	–	–	52,683	52,683	2,547,600
Minnesota	8,503	2,564,599	129,288	2,702,390	–	4,610	–	382,795	387,405	3,089,795
Wisconsin	186,814	179,157	2,546,424	2,912,395	1,190	–	–	74,588	75,778	2,988,173
Total	2,446,183	2,754,815	2,932,328	8,133,325	1,190	4,610	–	510,066	515,867	8,625,568
Total all residues										
Canada	7,880	11,059	650	19,590	–	–	–	–	–	–
Michigan	331,254	–	17,097	348,352	10,172	–	–	–	10,172	358,524
Minnesota	–	65,396	4,118	69,514	–	–	–	64,462	64,462	133,977
Other [3]	–	–	3,786	3,786	–	–	–	–	–	–
Wisconsin	112,366	7,444	351,081	470,891	1,222	48,473	32,784	16,387	98,866	569,758
Total	451,501	83,900	376,733	912,133	11,394	48,473	32,784	80,849	173,501	1,062,258
Total all wood material										
Canada	20,445	22,119	650	43,214	–	–	–	–	–	–
Michigan	2,569,555	–	273,713	2,843,268	10,172	–	–	52,683	62,855	2,906,124
Minnesota	8,503	2,629,995	133,406	2,771,904	–	4,610	–	447,258	451,868	3,223,772
Other [3]	–	–	3,786	3,786	–	–	–	–	–	–
Wisconsin	299,181	186,601	2,897,505	3,383,286	2,412	48,473	32,784	90,975	174,644	3,557,930
Total	2,897,684	2,838,714	3,309,061	9,045,459	12,584	53,084	32,784	590,916	689,368	9,687,826

[1] *Vertical columns of figures under the box heading "Production by State" present the amount of roundwood cut or residue generated in each State.*

[2] *Mostly Western States.*

[3] *Pulpwood shipped to mills outside of region.*

Table may not add due to rounding.

Table 2.--Lake States pulpwood production by State of origin, year, and destination, 1997-2001

(In thousand standard cords, unpeeled) [1]

MICHIGAN

Year	Total production	Destination of pulpwood			
		Michigan	Minnesota	Wisconsin	Other [2]
1997	3,346	3,104	1	223	18
1998	3,076	2,773	1	272	30
1999	3,115	2,753	5	306	50
2000	3,097	2,791	7	272	27
2001	2,898	2,570	9	299	20
5-year average	3,106	2,798	5	274	29

MINNESOTA

Year	Total production	Destination of pulpwood			
		Michigan	Minnesota	Wisconsin	Other [2]
1997	2,980	–	2,654	287	39
1998	2,975	–	2,685	251	39
1999	3,104	–	2,851	216	39
2000	3,036	–	2,803	211	21
2001	2,839	–	2,630	187	22
5-year average	2,987	–	2,725	230	32

WISCONSIN

Year	Total production	Destination of pulpwood			
		Michigan	Minnesota	Wisconsin	Other [2]
1997	3,194	234	45	2,913	2
1998	3,160	204	50	2,905	2
1999	3,336	206	63	3,064	2
2000	3,420	195	151	3,068	6
2001	3,309	274	133	2,898	4
5-year average	3,284	223	88	2,970	3

[1] *Includes mill residues used for pulp.*

[2] *Includes Canada.*

Table may not add due to rounding.

Table 3.--Lake States pulpwood production from roundwood by State, Forest Survey Unit, and species group, 1997-2001

(In thousand standard cords, unpeeled)

Forest Survey Unit	All species					Pine					Spruce				
	1997	1998	1999	2000	2001	1997	1998	1999	2000	2001	1997	1998	1999	2000	2001
MICHIGAN															
Eastern Upper Peninsula	633	590	627	575	646	131	106	110	110	118	18	25	24	19	26
Western Upper Peninsula	1,193	1,131	1,120	1,141	959	97	75	72	66	59	27	31	23	30	32
Northern Lower Peninsula	1,178	852	797	841	789	163	120	108	106	106	1	1	2	3	2
Southern Lower Peninsula	95	89	87	76	53	2	1	1	1	1	–	*	*	*	–
Total	3,099	2,662	2,632	2,633	2,446	392	302	291	283	284	46	57	50	51	61
MINNESOTA															
Aspen-Birch	1,046	1,119	1,171	1,210	1,171	35	33	27	44	59	123	110	102	125	148
Northern Pine	1,501	1,357	1,449	1,428	1,318	66	43	45	62	63	43	41	45	56	51
Central Hardwood	277	253	237	228	180	26	20	12	10	15	3	4	1	1	1
Prairie	52	72	94	71	86	–	*	*	*	*	–	*	*	*	*
Total	2,875	2,800	2,951	2,937	2,755	126	97	84	116	138	168	156	149	182	200
WISCONSIN															
Northeastern	980	874	899	1,002	1,001	173	149	117	146	115	18	18	21	31	24
Northwestern	1,134	1,119	1,209	1,211	1,159	205	151	164	190	168	22	16	21	28	15
Central	577	652	695	650	645	270	278	290	262	270	2	3	5	4	6
Southwestern	80	87	79	87	78	39	51	51	44	31	1	2	2	2	2
Southeastern	40	33	18	25	50	23	19	13	13	15	1	2	1	2	2
Total	2,811	2,765	2,900	2,974	2,932	709	649	635	655	600	44	40	50	66	49
Total Lake States	8,785	8,227	8,483	8,545	8,133	1,227	1,048	1,010	1,054	1,021	258	253	249	300	309

(Table 3 continued on next page)

(Table 3 continued)

MICHIGAN

Forest Survey Unit	Balsam fir					Other softwoods					Aspen				
	1997	1998	1999	2000	2001	1997	1998	1999	2000	2001	1997	1998	1999	2000	2001
Eastern Upper Peninsula	20	28	31	23	26	24	22	25	24	40	125	148	165	144	153
Western Upper Peninsula	29	41	37	36	33	57	55	57	65	62	339	309	287	308	292
Northern Lower Peninsula	2	3	5	6	4	*	*	1	*	1	540	375	354	367	366
Southern Lower Peninsula	–	–	*	–	*	–	*	*	*	*	38	25	26	19	15
Total	52	72	73	64	64	82	77	82	90	103	1,041	857	832	838	826
MINNESOTA															
Aspen-Birch	106	101	108	110	101	12	9	10	12	25	649	736	804	780	699
Northern Pine	79	80	85	72	68	8	6	3	6	21	1,187	1,057	1,142	1,091	968
Central Hardwood	10	6	1	2	1	1	1	*	*	*	222	206	204	194	147
Prairie	–	*	*	–	*	–	*	*	*	*	50	68	92	69	82
Total	195	188	194	184	171	21	16	12	18	46	2,108	2,067	2,241	2,134	1,895
WISCONSIN															
Northeastern	32	36	40	40	35	24	22	24	25	24	328	313	300	343	291
Northwestern	44	42	50	42	48	8	10	13	10	7	481	469	529	507	415
Central	1	1	1	1	1	3	2	2	2	2	149	171	203	147	137
Southwestern	*	*	*	4	*	*	*	*	*	*	17	18	14	12	12
Southeastern	*	*	*	–	*	*	*	*	*	*	5	4	1	3	10
Total	78	79	92	87	84	34	34	39	37	33	980	975	1,047	1,012	865
Total Lake States	325	339	359	335	319	137	127	133	144	182	4,129	3,899	4,120	3,984	3,586

(Table 3 continued on next page)

(Table 3 continued)

Forest Survey Unit	Birch					Maple					Other hardwoods				
	1997	1998	1999	2000	2001	1997	1998	1999	2000	2001	1997	1998	1999	2000	2001
MICHIGAN															
Eastern Upper Peninsula	51	37	27	47	43	221	183	209	170	194	42	41	36	40	46
Western Upper Peninsula	87	71	63	110	68	430	414	460	415	308	126	136	121	112	104
Northern Lower Peninsula	40	33	30	42	31	266	172	170	209	196	165	148	127	109	83
Southern Lower Peninsula	1	*	1	1	*	23	23	28	26	16	32	38	31	28	20
Total	180	141	122	199	142	940	792	867	820	714	365	362	315	289	253
MINNESOTA															
Aspen-Birch	60	60	61	72	70	9	11	8	19	24	51	58	52	48	45
Northern Pine	55	69	74	73	71	1	1	1	16	18	63	59	53	51	58
Central Hardwood	8	6	8	9	7	5	7	6	10	8	3	3	4	3	2
Prairie	*	*	*	*	*	–	–	1	*	–	2	4	2	2	4
Total	123	135	144	154	148	15	19	15	45	50	119	123	111	104	109
WISCONSIN															
Northeastern	106	85	89	89	91	178	158	188	212	287	122	93	120	117	132
Northwestern	119	131	128	133	110	165	195	194	207	258	89	105	110	94	138
Central	24	28	27	30	28	51	65	64	75	90	77	105	102	128	111
Southwestern	5	3	2	3	3	7	5	3	11	20	11	7	6	11	10
Southeastern	2	1	1	1	3	4	2	1	4	12	4	4	2	3	8
Total	257	248	247	257	235	405	426	451	509	666	304	314	339	351	400
Total Lake States	560	524	513	610	525	1,360	1,237	1,334	1,374	1,430	788	799	765	744	761

* *Less than 500 standard cords.*

Table may not add due to rounding.

Table 4.--Lake States pulpwood production by State of origin, product form, Forest Survey Unit, and destination, 2001

(In thousand standard cords, unpeeled)

MICHIGAN

Product form and Forest Survey Unit	Total production	Destination of pulpwood			
		Michigan	Minnesota	Wisconsin	Other [1]
Roundwood					
Eastern Upper Peninsula	646	600	–	38	9
Western Upper Peninsula	959	800	9	149	1
Northern Lower Peninsula	789	786	–	0	3
Southern Lower Peninsula	53	53	–	–	–
Total	2,446	2,238	9	187	13
Residues	452	331	–	112	8
Total pulpwood	2,898	2,570	9	299	20

MINNESOTA

Product form and Forest Survey Unit	Total production	Destination of pulpwood			
		Michigan	Minnesota	Wisconsin	Other [1]
Roundwood					
Aspen-Birch	1,171	–	1,049	111	11
Northern Pine	1,318	–	1,287	31	–
Central Hardwood	180	–	143	37	–
Prairie	86	–	86	–	–
Total	2,755	–	2,565	179	11
Residues	84	–	65	7	11
Total pulpwood	2,839	–	2,630	187	22

WISCONSIN

Product form and Forest Survey Unit	Total production	Destination of pulpwood			
		Michigan	Minnesota	Wisconsin	Other [1]
Roundwood					
Northeastern	1,001	251	3	746	–
Northwestern	1,159	6	125	1,028	–
Central	645	0	0	645	–
Southwestern	78	–	0	78	–
Southeastern	50	0	–	50	–
Total	2,932	257	129	2,546	–
Residues	377	17	4	351	4
Total pulpwood	3,309	274	133	2,898	4

* *Less than 500 standard cords, unpeeled.*

[1] *Includes Canada.*

Table may not add due to rounding.

Table 5.--Pulpwood production from roundwood by Forest Survey Unit, county, and species group, Michigan, 2001

(In standard cords, unpeeled)

Forest Survey Unit and county [1]	All species	Species group										
		Northern white-cedar	Balsam fir	Hemlock	Jack pine	Red pine	White pine	Spruce	Tamarack	Ash	Aspen	Balsam poplar
Eastern Upper Peninsula												
Alger	92,091	473	5,111	12,743	5,471	6,184	596	4,678	867	1,046	10,671	897
Chippewa	72,589	202	2,814	1,357	7,254	2,406	291	4,479	235	717	19,931	509
Delta	100,546	542	4,611	4,262	10,581	10,247	488	2,877	1,023	866	27,260	849
Luce	71,124	58	604	3,695	10,890	5,228	81	593	357	908	11,941	202
Mackinac	96,363	349	3,879	2,530	7,658	6,157	307	3,308	449	798	29,060	599
Menominee	94,213	443	5,567	4,976	3,543	3,228	538	6,468	1,134	1,109	33,196	1,077
Schoolcraft	118,813	407	3,589	3,427	17,704	18,301	346	3,664	747	1,138	21,427	506
Total	645,739	2,473	26,174	32,990	63,102	51,751	2,647	26,066	4,812	6,580	153,485	4,638
Western Upper Peninsula												
Baraga	85,528	228	2,148	11,401	1,818	1,728	193	1,604	418	1,680	23,644	1,298
Dickinson	121,132	503	6,047	2,877	4,688	3,816	442	5,595	924	977	53,061	2,330
Gogebic	119,700	23	2,499	8,446	1,207	912	212	3,278	99	3,751	18,734	368
Houghton	103,003	77	2,976	4,562	2,967	2,777	79	1,283	141	2,435	34,478	1,516
Iron	139,901	582	8,584	3,716	6,361	6,401	1,001	8,622	1,079	2,214	41,201	2,102
Keweenaw	41,734	13	112	1,628	85	99	11	70	24	927	2,965	172
Marquette	212,096	990	9,242	17,305	13,354	6,472	842	10,202	2,002	2,213	64,071	3,257
Ontonagon	135,883	94	1,841	4,484	1,745	1,853	256	1,835	172	5,477	53,905	2,273
Total	958,977	2,510	33,449	54,419	32,224	24,058	3,036	32,488	4,860	19,674	292,059	13,317
Northern Lower Peninsula												
Alcona	38,238	20	191	–	4,177	623	19	39	–	186	25,668	740
Alpena	36,363	11	256	–	693	22	3	177	–	676	19,319	1,089
Antrim	17,579	31	29	18	2,675	898	21	16	6	47	4,742	118
Arenac	15,377	–	–	–	3,287	49	28	–	–	92	6,874	169
Bay	4,594	–	–	–	–	–	–	–	–	14	2,838	39
Benzie	10,463	–	–	–	1,062	20	–	–	–	62	3,965	146
Charlevoix	11,180	18	168	–	328	114	–	34	–	156	3,374	149
Cheboygan	52,469	78	899	90	4,633	961	50	479	32	215	32,737	570
Clare	30,208	–	–	–	526	212	1	–	–	155	15,545	365
Crawford	40,306	13	108	–	14,930	416	145	26	–	132	13,407	245
Emmet	31,225	39	415	4	556	1,259	1	194	1	191	15,564	365
Gladwin	16,092	–	–	35	88	117	–	–	–	88	11,129	203
Grand Traverse	18,231	–	–	–	2,615	833	9	–	–	137	7,258	330
Iosco	13,317	–	–	–	1,702	216	1	–	–	13	8,446	284
Isabella	16,049	–	–	–	693	149	–	–	–	244	8,040	576
Kalkaska	32,277	–	–	–	5,644	343	1	–	–	104	12,712	87
Lake	26,981	–	–	–	1,491	1,061	–	–	–	266	8,796	627
Leelanau	1,083	–	–	–	–	–	–	–	–	–	653	–

Manistee	19,645	–	–	–	841	886	–	–	–	135	6,419	319
Mason	16,722	–	–	–	291	280	–	–	–	171	5,931	404
Mecosta	18,851	–	–	–	1,258	1,116	–	–	–	172	9,565	406
Midland	9,091	–	–	–	48	11	–	–	–	129	4,829	290
Missaukee	36,683	1	7	4	2,002	301	10	28	1	279	17,859	656
Montmorency	30,219	2	198	–	4,792	267	48	278	–	127	17,435	222
Newaygo	20,717	–	–	–	–	74	–	–	–	137	5,579	323
Oceana	12,202	–	–	–	1,175	173	–	–	–	114	3,443	268
Ogemaw	39,966	–	–	–	16,148	284	167	–	–	25	11,361	349
Osceola	14,331	–	–	–	210	772	–	–	–	72	7,708	170
Oscoda	28,441	11	118	–	2,678	1,348	19	61	–	88	15,486	379
Otsego	34,934	83	746	9	1,487	589	7	250	3	299	11,955	152
Presque Isle	37,695	73	1,318	13	2,416	188	11	577	5	133	21,243	530
Roscommon	31,225	4	34	–	7,002	784	60	8	–	11	15,805	8
Wexford	26,179	–	–	–	3,197	2,075	11	–	–	131	9,949	306
Total	788,935	384	4,486	174	88,645	16,440	611	2,166	48	4,803	365,632	10,884
Southern Lower Peninsula												
Allegan	5,999	–	–	–	–	–	–	–	–	1	620	2
Barry	1,240	–	–	–	–	–	–	–	–	*	128	*
Branch	978	–	–	–	–	–	–	–	–	–	99	–
Calhoun	7,404	–	–	–	–	–	–	–	–	–	747	–
Cass	1,284	–	–	–	–	–	–	–	–	–	130	–
Genesee	198	–	–	–	–	–	–	–	–	–	80	–
Gratiot	2,417	–	–	–	–	–	–	–	–	29	1,266	41
Huron	279	–	–	–	–	–	–	–	–	–	279	–
Ionia	221	–	–	–	–	–	–	–	–	1	42	2
Kalamazoo	1,124	–	–	–	122	105	–	–	–	*	98	1
Kent	4,572	–	–	–	–	20	–	–	–	36	1,086	51
Lapeer	99	–	–	–	99	–	–	–	–	–	–	–
Monroe	55	–	–	–	–	–	–	–	–	1	20	3
Montcalm	10,209	–	–	–	654	15	–	–	–	152	4,493	358
Muskegon	4,268	–	–	–	–	–	–	–	–	29	888	68
Ottawa	2,824	–	–	–	–	–	–	–	–	27	686	64
Saginaw	198	–	–	–	2	–	–	–	–	–	–	–
Sanilac	1,533	–	–	–	99	–	–	–	–	–	1,326	–
St. Joseph	2,006	–	–	–	–	–	–	–	–	–	203	–
Tuscola	2,722	–	–	–	83	82	–	–	–	–	2,066	–
Van Buren	2,886	–	–	–	–	–	–	–	–	–	291	–
Wayne	14	–	–	–	–	–	–	–	–	*	5	1
Total	52,532	–	–	–	1,059	222	–	–	–	278	14,553	592
State total	2,446,183	5,368	64,109	87,583	185,030	92,471	6,294	60,720	9,721	31,335	825,730	29,431

(Table 5 continued)

Forest Survey Unit and county [1]	Species group											
	Basswood	Beech	White birch	Yellow birch	Cotton-wood	Elm	Hickory	Hard maple	Soft maple	Red oak	White oak	Other hardwoods
Eastern Upper Peninsula												
Alger	1,350	1,695	4,383	1,872	–	62	–	16,931	15,163	656	–	1,241
Chippewa	1,617	1,700	4,133	1,694	–	25	–	10,705	11,217	547	1	755
Delta	1,280	1,494	3,873	1,604	–	47	–	14,107	12,896	612	–	1,029
Luce	1,296	1,653	4,098	1,667	–	16	–	12,653	13,475	807	–	902
Mackinac	1,275	1,525	5,574	1,498	–	27	–	13,301	16,516	661	–	894
Menominee	2,263	1,118	4,159	1,290	7	153	–	11,843	10,541	713	61	786
Schoolcraft	1,696	2,121	5,001	2,150	–	49	–	16,896	17,425	1,003	–	1,217
Total	10,778	11,306	31,222	11,774	7	378	–	96,436	97,233	4,998	63	6,825
Western Upper Peninsula												
Baraga	1,733	1,163	3,773	1,928	1	51	–	16,149	11,657	1,007	11	1,897
Dickinson	3,239	1,655	4,604	1,641	1	36	–	13,314	13,204	1,095	178	904
Gogebic	4,545	2,405	9,575	2,473	81	1,001	–	25,547	26,983	4,300	1,566	1,695
Houghton	2,347	1,550	4,780	2,583	1	40	–	19,636	14,563	1,544	192	2,477
Iron	2,322	1,642	8,190	2,102	6	325	–	21,453	18,496	1,575	637	1,293
Keweenaw	1,391	1,759	3,809	1,653	7	3	–	12,301	12,658	1,070	61	913
Marquette	2,405	2,546	9,381	3,340	–	148	–	33,804	26,963	823	1	2,735
Ontonagon	3,788	675	5,003	3,234	9	237	–	28,417	12,642	2,371	243	5,329
Total	21,770	13,393	49,115	18,954	107	1,842	–	170,620	137,166	13,784	2,891	17,243
Northern Lower Peninsula												
Alcona	672	200	1,989	–	–	–	–	783	2,930	–	–	–
Alpena	679	685	3,695	–	–	–	–	2,600	6,459	–	–	–
Antrim	2,340	72	696	3	–	4	7	2,608	2,918	189	140	–
Arenac	152	104	1,022	3	–	3	5	646	2,945	–	–	–
Bay	17	7	164	6	–	7	12	84	1,406	–	–	–
Benzie	208	113	147	106	–	29	53	1,136	2,406	540	470	–
Charlevoix	1,623	158	350	22	–	24	43	2,513	2,092	5	10	–
Cheboygan	947	448	2,612	181	–	–	–	1,732	5,667	139	–	–
Clare	308	71	372	67	–	72	132	3,493	6,500	1,250	1,141	–
Crawford	372	105	761	43	–	47	85	1,307	4,796	2,719	649	–
Emmet	1,539	230	2,052	14	–	15	27	3,547	5,211	–	–	–
Gladwin	135	52	492	34	–	37	68	642	2,744	117	112	–
Grand Traverse	646	63	137	59	–	64	117	1,392	3,525	615	431	–
Iosco	13	14	630	–	–	–	–	41	1,956	–	–	–
Isabella	291	112	259	105	–	113	209	1,437	3,821	–	–	–
Kalkaska	1,145	396	1,501	278	–	17	32	2,321	5,711	1,928	55	–
Lake	317	121	289	114	–	123	227	3,086	6,407	1,747	2,307	–
Leelanau	–	–	–	–	–	–	–	116	187	73	54	–

Manistee	161	62	125	58	–	63	115	2,741	5,404	1,286	1,030	–
Mason	205	78	159	74	–	80	147	2,382	4,648	987	886	–
Mecosta	252	79	241	74	–	97	163	1,085	3,304	489	531	20
Midland	153	62	242	53	–	57	105	744	2,341	9	18	–
Missaukee	638	129	837	120	–	129	238	3,827	7,822	622	1,173	–
Montmorency	1,134	128	782	–	–	–	*	1,094	3,133	557	24	–
Newaygo	269	63	127	59	–	145	192	1,615	5,597	2,980	3,460	97
Oceana	188	52	106	49	–	93	134	881	3,028	1,179	1,273	48
Ogemaw	145	29	631	–	–	–	–	2,050	6,133	1,777	866	–
Osceola	109	33	136	31	–	33	61	1,330	2,691	540	435	–
Oscoda	428	114	1,365	–	–	–	–	635	3,863	1,775	72	–
Otsego	2,242	917	2,443	422	–	–	–	5,877	7,245	174	35	–
Presque Isle	803	182	3,414	–	–	–	–	1,156	5,328	305	–	–
Roscommon	135	15	512	1	–	2	3	502	4,118	2,081	140	–
Wexford	291	61	251	56	–	60	111	2,921	5,823	551	385	–
Total	18,555	4,954	28,538	2,032	–	1,312	2,288	58,323	138,160	24,637	15,696	165
Southern Lower Peninsula												
Allegan	82	*	1	*	–	63	58	5	1,856	1,554	1,680	75
Barry	17	–	*	–	–	13	12	1	384	321	347	15
Branch	13	–	–	–	–	10	10	–	303	255	276	12
Calhoun	100	–	–	–	–	78	72	–	2,291	1,933	2,089	93
Cass	18	–	–	–	–	14	13	–	397	335	362	16
Genesee	–	–	4	–	–	–	–	46	68	–	–	–
Gratiot	128	13	18	12	–	–	12	169	730	–	–	–
Huron	–	–	–	–	–	–	–	–	–	–	–	–
Ionia	3	1	1	1	–	1	2	9	51	43	63	1
Kalamazoo	12	*	*	*	–	9	9	3	277	228	247	11
Kent	80	17	17	16	–	28	41	213	1,350	743	840	33
Lapeer	–	–	–	–	–	–	–	–	–	–	–	–
Monroe	2	*	1	*	–	*	1	7	19	–	–	–
Montcalm	193	69	141	65	–	79	138	889	2,269	295	388	11
Muskegon	72	13	27	12	–	43	52	171	1,252	760	846	35
Ottawa	49	12	25	12	–	25	35	158	732	424	559	15
Saginaw	–	–	–	–	–	–	–	–	196	–	–	–
Sanilac	–	–	–	–	–	–	–	38	71	–	–	–
St. Joseph	27	–	–	–	–	21	19	–	621	524	566	25
Tuscola	–	–	78	–	–	–	–	11	403	–	–	–
Van Buren	39	–	–	–	–	30	28	–	894	754	815	36
Wayne	1	–	*	–	–	–	*	2	5	–	–	–
Total	834	126	314	119	–	415	503	1,722	14,167	8,170	9,079	378
State total	51,937	29,779	109,189	32,879	115	3,946	2,791	327,101	386,725	51,588	27,729	24,611

* *Less than 1/2 cord.*

[1] *Includes only those counties that supplied pulpwood in 2000.*

Table may not add due to rounding.

Table 6.--Pulpwood production from roundwood by Forest Survey Unit, county, and species group, Minnesota, 2001

(In standard cords, unpeeled)

Forest Survey Unit and county [1]	All species	Species group															
		Balsam fir	Jack pine	Red pine	White pine	Spruce	Tamarack	Ash	Aspen	Balsam poplar	Bass-wood	White birch	Cotton-wood	Hard maple	Soft maple	Red oak	White oak
Aspen-Birch																	
Carlton	74,156	7,868	2,592	9,411	253	491	741	13	39,234	1,081	243	8,928	–	533	2,767	–	–
Cook	49,545	2,440	5,291	139	–	13,846	591	–	26,005	21	–	1,035	–	35	143	–	–
Koochiching	388,499	32,786	7,553	1,440	364	66,877	12,861	–	240,685	21,404	71	3,720	–	–	737	–	–
Lake	83,853	10,031	6,367	1,702	182	15,667	634	538	30,496	781	1,317	11,225	–	477	4,436	–	–
St. Louis	574,828	48,229	18,921	4,754	278	51,460	9,941	235	362,267	17,072	1,829	44,909	–	2,939	11,995	–	–
Total	1,170,881	101,355	40,723	17,446	1,077	148,341	24,767	786	698,687	40,359	3,460	69,816	–	3,984	20,078	–	–
Northern Pine																	
Aitkin	134,465	4,530	1,369	2,111	26	3,369	2,952	–	102,072	4,285	748	5,663	–	32	7,310	–	–
Becker	62,094	1,130	1,674	331	–	93	23	–	55,085	806	45	2,847	–	–	60	–	–
Beltrami	175,504	4,065	4,366	904	–	1,311	7,051	–	132,455	16,565	731	7,825	–	–	229	–	–
Cass	187,248	6,089	5,982	3,071	67	2,002	109	–	142,221	6,535	748	16,846	–	–	3,575	–	–
Clearwater	70,711	2,347	786	44	–	71	699	–	60,914	1,599	344	3,908	–	–	–	–	–
Crow Wing	68,510	194	4,865	1,658	73	12	5	–	55,970	925	240	3,119	–	–	1,449	–	–
Hubbard	111,414	632	8,910	1,935	–	198	15	–	89,936	1,366	168	8,139	–	–	114	–	–
Itasca	357,374	45,762	5,161	5,929	22	36,674	7,305	–	215,444	13,676	1,328	20,993	–	111	4,969	–	–
Lake of the Woods	71,920	3,212	4,823	566	–	5,514	1,397	–	52,014	4,098	–	297	–	–	–	–	–
Mahnomen	17,546	6	61	–	–	19	15	–	16,379	307	194	565	–	–	–	–	–
Roseau	42,299	259	3,483	20	–	1,364	1,155	–	32,058	3,146	–	814	–	–	–	–	–
Wadena	19,292	115	4,482	755	1	–	69	–	13,494	103	–	244	–	–	31	–	–
Total	1,318,377	68,342	45,961	17,324	189	50,627	20,795	–	968,042	53,411	4,545	71,260	–	143	17,739	–	–
Central Hardwood																	
Anoka	2,964	–	18	1,587	–	10	–	–	580	–	–	334	–	315	119	–	–
Benton	1,640	–	63	1,167	52	3	–	–	309	22	23	–	–	–	1	–	–
Chisago	185	–	16	70	*	27	–	–	70	2	–	–	–	–	–	–	–
Douglas	363	–	–	–	–	–	–	–	352	–	–	10	–	–	–	–	–
Goodhue	143	–	–	–	–	39	–	–	104	–	–	–	–	–	–	–	–
Houston	543	–	109	418	10	–	–	–	–	–	–	–	–	2	2	2	–
Isanti	4,779	–	36	2,173	8	–	–	–	2,563	–	–	–	–	–	–	–	–
Kanabec	18,996	20	39	66	–	20	1	–	17,840	57	208	291	–	3	450	–	–
Mille Lacs	19,265	–	–	77	–	339	–	–	17,336	135	725	53	–	–	601	–	–
Morrison	18,399	–	505	500	9	–	–	–	16,840	54	85	149	–	–	256	–	–
Otter Tail	14,853	–	221	42	–	–	–	–	14,219	67	32	271	–	–	–	–	–
Pine	86,813	856	860	2,644	75	57	21	24	70,100	280	506	5,341	–	1,939	4,093	9	7
Ramsey	117	–	–	117	–	–	–	–	–	–	–	–	–	–	–	–	–
Sherburne	3,519	–	358	2,905	68	25	–	–	163	–	–	–	–	–	–	–	–
Stearns	535	–	–	122	–	–	–	–	414	–	–	–	–	–	–	–	–
Todd	6,063	–	125	11	–	–	–	–	5,708	113	25	81	–	–	–	–	–
Wabasha	113	–	–	83	29	–	–	–	–	–	–	–	–	–	–	–	–
Washington	177	–	–	–	–	–	–	–	177	–	–	–	–	–	–	–	–
Wright	322	–	–	322	–	–	–	–	–	–	–	–	–	–	–	–	–
Total	179,786	876	2,351	12,304	250	518	23	24	146,775	730	1,605	6,530	–	2,260	5,522	11	7
Prairie																	
Clay	11	–	–	–	–	–	–	–	–	11	–	–	–	–	–	–	–
Kittson	23,261	12	121	–	–	38	31	–	22,487	572	–	–	–	–	–	–	–
Marshall	24,932	15	30	–	–	9	7	–	22,794	2,067	–	9	–	–	–	–	–
Meeker	418	–	–	–	–	–	–	–	418	–	–	–	–	–	–	–	–
Norman	3,367	–	–	–	–	–	–	–	3,294	50	12	–	11	–	–	–	–
Pennington	11,244	–	–	–	–	–	–	–	10,933	311	–	–	–	–	–	–	–
Polk	16,202	–	9	–	–	93	–	–	15,613	246	29	110	102	–	–	–	–
Red Lake	6,338	–	–	–	–	–	–	–	6,088	91	–	30	129	–	–	–	–
Total	85,772	27	161	–	–	140	38	–	81,627	3,346	41	149	242	–	–	–	–
State total	2,754,815	170,599	89,195	47,074	1,516	199,627	45,623	810	1,895,131	97,847	9,651	147,755	242	6,387	43,339	11	7

* *Less than 1/2 cord.*

[1] *Includes only those counties that supplied pulpwood in 2000.*

Table may not add due to rounding.

Tables continued on next page.

Table 7.--Pulpwood production from roundwood by Forest Survey Unit, county, and species group, Wisconsin, 2001

(In standard cords, unpeeled)

Forest Survey Unit and county [1]	All species	Species group										
		Northern white-cedar	Balsam fir	Hemlock	Jack pine	Red pine	White pine	Spruce	Tamarack	Ash	Aspen	Balsam poplar
Northeastern												
Florence	79,966	43	1,690	4,108	2,814	1,077	169	1,078	111	1,465	19,152	508
Forest	131,511	9	4,777	2,412	1,975	5,986	344	3,331	1,150	4,131	28,471	210
Langlade	156,002	1	7,082	458	137	3,717	444	3,091	1,375	5,737	34,194	45
Lincoln	120,462	–	4,519	824	2,112	2,661	941	3,193	1,028	4,290	51,901	1
Marinette	124,400	13	4,133	2,046	16,323	12,280	1,308	2,888	817	1,766	40,111	576
Menominee	60,460	223	2,462	5,209	1,801	4,167	2,344	1,052	409	2,488	16,418	71
Oconto	62,308	–	533	150	2,480	5,574	412	401	178	1,391	18,478	201
Oneida	151,670	11	6,052	752	4,980	11,108	2,685	7,548	2,066	4,209	48,974	9
Shawano	32,305	–	1,490	508	8	4,134	198	111	–	1,995	4,270	2
Vilas	81,542	1	2,463	133	12,342	8,433	2,423	1,747	401	1,693	29,322	18
Total	1,000,625	301	35,201	16,598	44,971	59,137	11,267	24,440	7,536	29,165	291,292	1,642
Northwestern												
Ashland	86,048	–	3,572	137	1,760	2,128	891	1,660	309	2,815	25,616	3
Barron	18,828	–	9	–	106	1,311	954	123	28	445	9,690	–
Bayfield	168,281	–	6,433	–	20,363	16,261	3,883	2,003	–	4,938	45,979	20
Burnett	70,703	–	553	–	23,748	9,523	1,336	254	23	405	22,955	4
Douglas	172,073	–	12,955	–	24,007	13,592	249	2,735	334	1,545	69,358	157
Iron	115,879	1	3,634	225	1,672	852	582	1,870	647	3,655	58,321	–
Polk	22,446	–	10	–	4,273	1,498	225	82	18	157	12,894	24
Price	126,480	–	11,060	1,004	1,150	2,524	934	2,564	830	4,790	43,962	–
Rusk	79,809	–	1,272	–	1,440	2,337	672	784	420	3,337	28,573	–
Sawyer	155,769	–	5,024	383	2,355	4,908	2,544	2,585	964	7,338	43,356	354
Taylor	58,207	–	2,661	782	16	941	50	347	718	2,738	20,104	–
Washburn	84,214	–	618	–	11,789	6,751	291	219	15	2,294	33,813	–
Total	1,158,736	1	47,801	2,533	92,679	62,625	12,612	15,226	4,305	34,457	414,622	563
Central												
Adams	66,694	–	24	15	20,027	23,184	2,783	79	–	776	3,653	–
Chippewa	33,705	–	54	–	454	2,424	270	117	13	937	17,442	–
Clark	74,349	–	–	93	4,007	3,985	1,151	267	–	2,168	34,051	–
Eau Claire	27,513	1	4	13	5,520	6,289	819	30	1	653	3,561	–
Jackson	87,038	–	–	–	16,050	12,015	7,821	317	97	2,182	10,963	–
Juneau	56,380	–	–	–	19,697	9,810	1,518	138	–	1,138	4,100	–
Marathon	69,529	–	695	1,422	942	3,597	1,537	1,596	–	2,844	25,784	–
Marquette	11,213	–	–	–	1,754	6,394	1,124	94	–	77	218	–
Monroe	31,616	–	–	–	9,790	3,758	2,111	5	76	821	2,261	–
Portage	50,957	–	130	167	10,126	15,208	5,708	585	8	852	7,364	–
Waupaca	34,182	–	147	83	7,587	10,617	2,087	219	5	838	3,541	–
Waushara	40,731	–	–	–	744	26,206	5,596	547	45	273	2,275	–
Wood	61,143	–	162	57	4,810	8,710	4,017	1,579	–	1,446	21,986	–
Total	645,050	1	1,215	1,850	101,509	132,198	36,542	5,573	244	15,005	137,200	–

Southwestern												
Buffalo	4,118	–	–	–	106	806	400	266	–	154	647	–
Crawford	188	–	–	–	–	56	44	–	–	6	9	–
Dunn	12,249	–	58	–	2,274	4,124	408	255	–	150	3,006	–
Grant	177	–	–	–	–	134	22	–	–	2	–	–
Iowa	5,052	–	–	–	155	1,553	1,773	140	–	90	304	–
La Crosse	3,318	–	13	–	319	1,188	36	370	–	59	664	–
Lafayette	119	–	–	–	–	–	–	–	–	8	13	–
Pepin	3,781	–	–	–	–	148	–	57	–	182	1,212	–
Pierce	6,582	–	17	12	34	379	63	104	–	537	503	–
Richland	9,906	–	–	–	–	173	121	21	–	217	522	–
Sauk	9,034	–	–	–	1,891	3,943	1,067	135	–	65	417	–
St. Croix	11,508	–	15	–	225	3,139	222	266	30	267	3,948	–
Trempealeau	8,242	–	–	–	140	3,787	1,164	137	–	205	390	–
Vernon	3,849	–	–	–	11	786	220	–	–	183	452	–
Total	78,122	–	102	12	5,156	20,217	5,538	1,750	30	2,125	12,088	–
Southeastern												
Brown	279	–	6	–	12	60	–	–	–	2	167	8
Calumet	13	–	–	–	–	–	–	–	13	–	–	–
Columbia	7,283	–	–	–	221	2,838	563	57	–	89	1,026	–
Dane	557	–	–	–	217	249	45	–	–	4	–	–
Dodge	1,870	–	–	–	–	12	125	97	–	7	1,576	–
Door	566	–	–	–	98	24	–	–	–	51	10	–
Fond Du Lac	221	–	–	–	–	101	52	44	–	1	–	–
Green	11	–	–	–	–	11	–	–	–	–	–	–
Green Lake	1,806	–	–	–	95	1,269	322	14	–	7	–	–
Jefferson	426	–	–	13	–	103	54	45	–	16	11	–
Kewaunee	31	1	5	3	4	2	13	3	1	–	–	–
Manitowoc	23,051	–	13	–	22	242	450	217	–	1,051	6,719	–
Milwaukee	34	–	–	–	–	–	–	–	–	2	–	–
Outagamie	3,002	–	–	–	–	558	37	–	–	204	235	–
Ozaukee	265	–	–	–	–	107	30	114	–	1	–	–
Racine	40	–	–	–	–	12	28	–	–	–	–	–
Rock	69	–	–	–	–	25	17	–	–	2	–	–
Sheboygan	2,298	–	15	–	–	533	730	1,021	–	–	–	–
Walworth	506	–	–	–	10	391	96	8	–	–	–	–
Washington	1,568	–	–	–	29	258	547	–	–	39	264	–
Waukesha	4,603	–	–	–	12	3,303	614	254	–	36	39	–
Winnebago	1,296	–	–	–	126	344	165	118	–	27	13	–
Total	49,795	1	38	15	844	10,441	3,889	1,989	14	1,540	10,060	8
State total	2,932,328	303	84,359	21,008	245,159	284,618	69,849	48,979	12,130	82,292	865,261	2,213

(Table 7 continued on next page)

(Table 7 continued)

Forest Survey Unit and county [1]	Species group										
	Bass-wood	Beech	White birch	Yellow birch	Cotton-wood	Elm	Hard maple	Soft maple	Red oak	White oak	Other hardwoods
Northeastern											
Florence	2,426	2,104	5,454	2,073	–	142	15,637	16,395	1,982	520	1,019
Forest	6,479	2,220	11,735	3,038	20	3,053	23,945	23,164	3,273	632	1,154
Langlade	8,911	2,419	15,126	3,843	29	5,265	29,975	28,412	3,955	511	1,276
Lincoln	3,589	320	8,622	1,091	104	3,889	15,552	10,736	3,449	911	729
Marinette	3,214	1,496	5,809	1,818	1	582	13,306	13,553	1,569	68	723
Menominee	453	195	1,926	942	23	2,186	8,358	7,703	1,592	201	238
Oconto	2,331	1,065	4,105	1,178	15	327	10,450	10,069	1,817	553	601
Oneida	3,233	945	13,161	1,581	107	1,229	20,803	15,476	4,675	966	1,099
Shawano	275	88	2,044	704	1	2,745	5,796	5,701	1,514	712	7
Vilas	764	115	6,177	338	40	546	6,568	5,033	1,954	746	288
Total	31,675	10,966	74,159	16,607	340	19,963	150,390	136,242	25,779	5,820	7,135
Northwestern											
Ashland	1,045	73	6,210	508	11	1,745	9,317	21,062	4,427	2,679	80
Barron	173	7	1,326	96	4	96	1,609	1,425	1,092	307	27
Bayfield	1,715	81	16,165	504	40	504	17,040	18,834	8,364	4,872	281
Burnett	822	8	3,325	52	4	52	2,685	3,718	826	378	29
Douglas	678	1	16,239	109	1	109	9,552	16,610	2,740	1,095	5
Iron	1,028	421	6,778	1,470	–	4,818	12,348	12,945	3,080	1,399	134
Polk	172	1	765	22	10	22	638	1,024	429	176	5
Price	3,093	271	13,968	1,209	106	2,716	18,005	12,266	4,237	1,048	742
Rusk	2,937	40	9,022	750	17	919	11,372	9,242	4,508	2,052	117
Sawyer	2,848	52	18,995	1,475	15	2,016	23,157	23,673	9,001	4,622	102
Taylor	1,673	148	5,320	1,144	4	4,635	8,263	7,277	1,177	181	29
Washburn	541	15	4,806	111	6	223	6,822	9,079	4,146	2,635	42
Total	16,724	1,121	102,918	7,451	219	17,855	120,807	137,155	44,027	21,444	1,593
Central											
Adams	25	–	877	15	–	15	2,430	2,403	8,378	2,010	–
Chippewa	655	14	2,959	265	5	343	3,250	2,491	1,609	362	39
Clark	591	62	4,756	585	2	2,006	6,686	6,118	6,052	1,753	17
Eau Claire	178	1	1,422	103	1	111	2,086	1,891	3,862	962	5
Jackson	345	8	3,592	210	3	223	6,925	6,477	15,758	4,026	24
Juneau	40	–	1,298	24	–	24	3,565	3,520	8,941	2,568	–
Marathon	1,092	138	4,773	943	16	3,601	8,711	7,590	3,187	953	109
Marquette	9	2	122	7	1	5	256	207	791	144	7
Monroe	123	1	1,154	49	–	49	2,586	2,488	4,809	1,533	2
Portage	278	34	1,128	201	5	750	2,785	2,499	2,335	756	39
Waupaca	70	52	577	347	1	1,521	2,380	2,363	1,588	149	9
Waushara	51	8	409	23	3	16	992	824	2,231	460	26
Wood	175	25	1,881	216	1	803	4,437	4,258	4,701	1,871	7
Total	3,632	347	24,948	2,988	39	9,466	47,090	43,128	64,242	17,547	284

Southwestern											
Buffalo	2	2	168	1	1	1	493	461	359	243	7
Crawford	1	–	8	–	–	–	20	19	15	9	–
Dunn	88	1	490	46	–	46	489	427	323	62	2
Grant	1	–	5	1	–	1	5	4	1	–	–
Iowa	–	–	90	–	–	–	282	282	225	158	–
La Crosse	13	–	109	7	–	7	186	173	109	67	–
Lafayette	5	–	30	3	–	3	28	23	5	–	–
Pepin	104	23	297	–	13	–	876	442	252	92	83
Pierce	19	52	44	266	–	1,576	1,409	1,499	64	4	–
Richland	95	23	355	4	10	4	7,237	538	366	142	77
Sauk	9	1	107	6	–	6	208	185	834	156	2
St. Croix	309	23	529	22	13	22	1,148	760	353	137	83
Trempealeau	22	5	368	7	3	7	678	565	478	266	20
Vernon	90	23	303	1	10	1	881	436	279	94	77
Total	757	153	2,904	365	50	1,675	13,940	5,815	3,662	1,430	352
Southeastern											
Brown	1	–	7	1	–	1	7	5	1	–	–
Calumet	–	–	–	–	–	–	–	–	–	–	–
Columbia	18	–	159	11	–	10	285	268	1,485	252	–
Dane	–	–	5	–	–	–	12	12	8	5	–
Dodge	–	–	4	3	–	–	22	24	–	–	–
Door	1	–	33	20	–	1	154	172	1	–	–
Fond Du Lac	1	–	4	–	–	–	7	6	3	2	–
Green	–	–	–	–	–	–	–	–	–	–	–
Green Lake	4	–	25	2	–	2	25	21	18	3	–
Jefferson	1	–	21	1	–	1	50	49	36	24	–
Kewaunee	–	–	–	–	–	–	–	–	–	–	–
Manitowoc	819	148	1,788	9	75	1	5,827	2,924	1,633	593	521
Milwaukee	–	–	2	–	–	–	9	9	7	5	–
Outagamie	94	12	168	63	2	247	613	552	139	63	15
Ozaukee	1	–	4	–	–	–	4	3	1	–	–
Racine	–	–	–	–	–	–	–	–	–	–	–
Rock	–	–	2	–	–	–	7	7	5	4	–
Sheboygan	–	–	–	–	–	–	–	–	–	–	–
Walworth	–	–	–	–	–	–	–	–	–	–	–
Washington	13	–	85	9	–	7	124	113	54	28	–
Waukesha	6	–	53	10	–	4	111	111	32	18	–
Winnebago	5	–	49	3	–	3	88	77	232	46	–
Total	964	160	2,411	133	77	279	7,345	4,353	3,656	1,042	535
State total	53,751	12,747	207,339	27,543	724	49,238	339,572	326,693	141,367	47,283	9,900

[1] *Includes only those counties that supplied pulpwood in 2000.*

Table may not add due to rounding.

Table 8.--Number of industrial pulp or particleboard plants in the Lake States by product form, species group used, and State, 2001

Product form and species group	Total Lake States	State		
		Michigan	Minnesota	Wisconsin
Roundwood				
Softwoods				
Northern white-cedar	2	2	–	–
Balsam fir	18	4	7	7
Hemlock	6	1	–	5
Jack pine	15	3	7	5
Red pine	16	3	7	6
White pine	9	2	2	5
Spruce	17	3	7	7
Tamarack	8	1	2	5
Total plants using softwoods [1]	24	5	11	8
Hardwoods				
Ash	15	6	1	8
Aspen	35	10	13	12
Balsam poplar	15	6	8	1
Basswood	21	9	7	5
Beech	8	6	–	2
White birch	24	8	8	8
Yellow birch	9	6	–	3
Cottonwood	2	–	1	1
Elm	5	3	–	2
Hickory	2	2	–	–
Hard maple	19	9	1	9
Soft maple	20	10	2	8
Red oak	14	7	–	7
White oak	7	3	–	4
Other hardwoods	6	5	–	1
Total plants using hardwoods [1]	41	11	13	17
Total plants using roundwood [1]	44	12	14	18
Residues				
Softwood	12	2	3	7
Hardwood	21	7	6	8
Total plants using residues [1]	23	7	6	10
Total plants [1]	46	12	14	20

[1] *Some plants use more than one species, so numbers in columns are not additive.*

Table 9.--Average daily production of active wood pulp mills in the Lake States by State, company, location, and type of pulp produced, 2001

(In tons per 24 hours)

State and company	Location	Average daily production	Type of pulp produced				
			Sulfite	Kraft	Groundwood/ mecnanical	Semi-chemical	Thermo-mechanical
Michigan							
International Paper Co.	Quinnesec	1,199	–	1,199	–	–	–
Johnson Controls	Battle Creek	8	–	–	–	–	8
Louisiana-Pacific Corp.	Alpena	250	–	–	250	–	–
Meadwestvaco Corp.	Escanaba	1,234	–	1,234	–	–	–
Menasha Corporation	Otsego	660	–	–	–	660	–
Packaging Corp. Of America	Manistee	361	–	–	–	361	–
Sappi/Sd Warren	Muskegon	275	–	275	–	–	–
Smurfit-Stone Container	Ontonagon	751	–	–	–	751	–
Total	8 mills	4,738	–	2,708	250	1,772	8
Minnesota							
Blandin Paper	Grand Rapids	500	–	–	500	–	–
Boise Cascade	International Falls	996	–	996	–	–	–
Certain-Teed Corp	Shakopee	242	–	–	–	–	242
Georgia-Pacific Corp.	Duluth	240	–	–	–	–	240
International Bildrite, Inc	International Falls	100	–	–	100	–	–
International Paper Co.	Sartell	850	–	–	–	–	850
Potlatch Corp.	Cloquet	510	–	510	–	–	–
Stora Enso North America	Proctor	325	–	–	325	–	–
Total	8 mills	3,763	–	1,506	925	–	1,332
Wisconsin							
Appleton Coated, LLC	Combined Locks	63	–	–	63	–	–
Domtar Industries, Inc.	Nekoosa	400	–	400	–	–	–
Domtar Industries, Inc.	Port Edwards	250	250	–	–	–	–
Fraser Papers, Inc.	Park Falls	170	170	–	–	–	–
Georgia-Pacific Corp.	Phillips	75	–	–	75	–	–
Georgia-Pacific Corp.	Superior	235	–	–	–	–	235
International Paper Co.	Kaukauna	400	–	400	–	–	–
Packaging Corp. Of America	Tomahawk	1,378	–	–	–	1,378	–
Stora Enso North America	Biron	400	–	–	–	–	400
Stora Enso North America	Kimberly	50	–	–	50	–	–
Stora Enso North America	Niagara	250	–	–	250	–	–
Stora Enso North America	Stevens Point	200	–	–	–	–	200
Stora Enso North America	Wisconsin Rapids	1,200	–	1,200	–	–	–
Wausau-Mosinee Paper Corp.	Brokaw	281	281	–	–	–	–
Wausau-Mosinee Paper Corp.	Mosinee	275	–	275	–	–	–
Weyerhaeuser	Rothschild	159	159	–	–	–	–
Total	16 mills	5,786	860	2,275	438	1,378	835
Lake States total	32 mills	14,287	860	6,489	1,613	3,150	2,175

Table 10.--Annual production of active particleboard mills in the Lake States by State, company, location, and product produced, 2001

(In million square feet 3/4-inch basis)

State and company	Location	Product produced	Annual production
Michigan			
Georgia-Pacific Corp.	Gaylord	Particleboard	205
Louisiana Pacific Corp.	Newberry	Oriented strand board	130
Louisiana Pacific Corp.	Sagola	Oriented strand board	176
Weyerhaeuser	Grayling	Oriented strand board	249
Total	4 mills		760
Minnesota			
Louisiana Pacific Corp.	Two Harbors	Oriented strand board	60
Northwood Panelboard Co.	Solway	Oriented strand board	204
Potlatch Corp.	Bemidji	Oriented strand board	260
Potlatch Corp.	Grand Rapids	Oriented strand board	180
Potlatch Corp.	Cook	Oriented strand board	125
Trus Joist Weyerhaeuser	Deerwood	Engineered lumber	n/a
Total	6 mills		829
Wisconsin			
Louisiana Pacific Corp.	Tomahawk	Oriented strand board	64
Louisiana-Pacific Corp.	Hayward	Oriented strand board	250
Marshfield Doorsystems	Marshfield	Particleboard	71
Rodman Industries	Marinette	Particleboard	13
Total	4 mills		398
Lake States total	14 mills		1,987

Table 11.--Production and imports of pulpwood, Central States, 2001

(In standard cords, unpeeled)

Product form, species group, and destination	Production by State[1]					Imports			
	Illinois	Indiana	Iowa	Missouri	Regional Total	Lake States	Other U.S.	Total imports	Total receipts
Roundwood									
Softwoods									
Lake States	1,005	–	–	–	1,005	–	–	–	–
Southern States	1,056	–	–	49	1,105	–	–	–	–
Total	2,061	–	–	49	2,110	–	–	–	–
Soft hardwoods[2]									
Central States	13,228	9,323	11,700	3,983	38,234	–	–	–	38,234
Lake States	–	96	–	–	96	–	–	–	–
Southern States	10,475	582	–	1,552	12,609	–	–	–	–
Total	23,703	10,001	11,700	5,535	50,939	–	–	–	38,234
Hard hardwoods[3]									
Central States	5,552	10,919	5,123	826	22,420	–	–	–	22,420
Lake States	–	89	–	–	89	–	–	–	–
Southern States	33,505	1,742	–	55,306	90,552	–	–	–	–
Total	39,057	12,751	5,123	56,131	113,062	–	–	–	22,420
Total all roundwood									
Central States	18,780	20,242	16,823	4,809	60,654	–	–	–	60,654
Lake States	1,005	185	–	–	1,190	–	–	–	–
Southern States	45,036	2,324	–	56,906	104,266	–	–	–	–
Total	64,821	22,752	16,823	61,715	166,111	–	–	–	60,654
Residues									
Softwoods									
Central States	–	–	–	–	–	–	25,680	25,680	25,680
Southern States	–	–	–	117	117	–	–	–	–
Total	–	–	–	117	117	–	25,680	25,680	25,680
Hardwoods									
Central States	2,823	46,573	26,253	9,627	85,276	3,786	–	3,786	89,062
Lake States	–	10,172	1,222	–	11,394	–	–	–	–
Southern States	6,997	80,420	–	118,424	205,841	–	–	–	–
Total	9,821	137,164	27,475	128,050	302,510	3,786	–	3,786	89,062
Total all residues									
Central States	2,823	46,573	26,253	9,627	85,276	3,786	25,680	29,466	114,742
Lake States	–	10,172	1,222	–	11,394	–	–	–	–
Southern States	6,997	80,420	–	118,540	205,957	–	–	–	–
Total	9,821	137,164	27,475	128,167	302,627	3,786	25,680	29,466	114,742
Total all wood material									
Central States	21,604	66,815	43,076	14,436	145,930	3,786	25,680	29,466	175,396
Lake States	1,005	10,357	1,222	–	12,584	–	–	–	–
Southern States	52,033	82,744	–	175,447	310,224	–	–	–	–
Total	74,642	159,916	44,298	189,882	468,738	3,786	25,680	29,466	175,396

[1] *Vertical columns of figures under the box heading "Production by State" present the amount of roundwood cut or residue generated in each State.*

[2] *Hardwood species with an average specific gravity of 0.50 or less.*

[3] *Hardwood species with an average specific gravity greater than 0.50.*

Table may not add due to rounding.

Table 12.--Central States pulpwood production by product form and species group, 1997-2001

(In standard cords, unpeeled)

Product form and species group	1997	1998	1999	2000	2001
Roundwood					
Softwoods	10,269	18,680	10,283	7,643	2,110
Soft hardwoods[1]	86,312	34,475	46,232	64,036	50,939
Hard hardwoods[2]	66,818	126,197	141,997	165,994	113,062
Total	163,396	179,351	198,511	237,673	166,111
Residues					
Softwood	19,259	38,176	19,773	12,849	117
Hardwood	229,796	254,747	247,244	269,603	302,510
Total	249,056	292,923	267,017	282,452	302,627
Total all wood material	412,452	472,275	465,528	520,125	468,738

[1] *Hardwood species with an average specific gravity of 0.50 or less.*

[2] *Hardwood species with an average specific gravity greater than 0.50.*

Table may not add due to rounding.

Table 13.--Central States pulpwood production by State and destination, 1997-2001

(In thousand standard cords, unpeeled)

	Illinois			Indiana			Iowa			Missouri		
		Destination			Destination			Destination			Destination	
Year	Total	Central States	Other States	Total	Central States	Other States	Total	Central States	Other States	Total	Central States	Other States
1997	70	21	49	175	70	105	35	31	4	133	11	122
1998	79	20	59	183	68	115	34	29	5	176	13	163
1999	79	22	58	176	73	102	33	29	4	177	12	166
2000	92	32	60	168	70	98	48	46	1	212	17	195
2001	75	22	53	160	67	93	44	43	1	190	14	175

Table may not add due to rounding.

Table 14.--Average daily production of active wood pulp mills in the Central States by company, location, and type of pulp produced, 2001

(In tons per 24 hours)

Company	Location	Average daily production	Type of pulp produced	
			Groundwood/ mechanical	Semi-chemical
International Paper	Terre Haute, Indiana	225	–	225
Box USA	Fort Madison, Iowa	122	–	122
Jeld-Wen Fiber of Iowa	Dubuque, Iowa	73	73	–
Huebert Brothers Products	Boonville, Missouri	70	70	–
Central States total	4 mills	490	143	347

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Discusses 2001 production and receipts in the Lake, Central, and Plains States. Shows Michigan, Minnesota, and Wisconsin production by species for each county and compares production by Forest Survey Unit with that of previous years. Presents production data for Illinois, Indiana, Iowa, and Missouri by species group and product form. Includes 2001 production for the Plains States by species group and product form.

KEY WORDS: Roundwood, whole-tree chips, residue, pulpwood, particleboard, Michigan, Minnesota, Wisconsin, Illinois, Indiana, Iowa, Missouri, Plains States.

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